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OF
SEA VOYAGES
IN
MEDICINE.

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THE USE OF SEA VOYAGES IN MEDICINE;

And particularly in a

CONSUMPTION:

WITH

OBSERVATIONS on that DISEASE.

By EBENEZER GILCHRIST, M.D.

A NEW EDITION, revised, corrected, and enlarged.

LONDON:
Printed for T. CADELL, in the *Strand*.
MDCCLXXI.

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TO

SIR JOHN PRINGLE, Bart.

PHYSICIAN IN ORDINARY

TO HER MAJESTY, &c.

SIR,

I Should fail in my duty, if, on this occasion, I did not acknowledge my obligations to you. The ſmall performance I now offer you claims no merit but from the practice it recommends, and the intention with which it was written. Your knowledge and experience, and the rank you hold in your profeſſion, give you a right to judge how far it may be uſeful in medicine; to the improvement of which, as a friend to ſcience and to mankind, you have ſo much contributed. It will make me happy

if you approve of what I have done, and continue to favour me with a ſhare in your friendſhip. I wiſh it were in my power, on all occaſions, to give you a more convincing proof of my regard than merely ſubſcribing myſelf,

SIR,

Your moſt obliged and

obedient humble Servant,

Dumfries, Feb. 1. 1771.

EBENEZER GILCHRIST.

PREFACE.

THE notion that sailing, and living at sea, might be a remedy for some distempers, was early suggested to me on a particular and interesting occasion. What at first was indulged as a matter of speculation or amusement only, became afterwards an object of serious enquiry. It does not indeed, on a slight view of it, promise much information, and may not appear important enough to merit a formal disquisition. Yet I flatter myself that, when I have laid before the reader all my experience and conjectures relating to this subject, he will not find it altogether unworthy of his attention.

I was induced to publish the following sheets, that those to whom I had com-

communicated my ſentiments in general, might fully ſee upon what principles and trials they were founded; and the rather as ſo few were diſpoſed to comply with my advice of going to ſea, though the nature or circumſtances of their diſeaſe ſeemed ſtrongly to require it. Some doubted of its efficacy, others of its ſafety; and beſides, it lay under the diſadvantage of being ſuſpected, becauſe uncommon. For theſe reaſons, after having carefully ſearched into the opinions of authors of credit concerning it, I thought myſelf in ſome ſort called upon to vindicate, in this manner, a practice which I had ſo much endeavoured to promote.

This ſmall performance, however, does not pretend to be complete in all points, if in any. It is indeed no more than an eſſay, to revive, explain, and apply to practice, a part of natural knowledge, hitherto but little conſidered, either as a matter of curioſity, or of uſe.

In treating the subject I have brought together all that occurred to me from books, observation, and reasoning, in order that the reader, having every thing before him, might be enabled to judge what place this uncommon remedy deserves in medicine, and how far it is capable of being improved. For my own part, its good effects have not fallen short of my expectations, nor have I hitherto observed any bad ones from it. The instances given of cures, by living at sea, with the authorities adduced in support of this practice, will, I imagine, be sufficient grounds for farther trials.

Those who live at sea, or on its coasts, have opportunities of making many observations and experiments, for ascertaining some particular points which are here left undecided, and for discovering the causes on which they depend. All such are invited to lend their assistance toward the improvement of this branch of science, and

the

the practice connected with it, by communicating whatever may come to their knowledge, tending either to confirm, or to invalidate the truth of what is here advanced, and the propriety of what is proposed. The longest voyage I ever made did not exceed four days.

It is well known that the remedies now in use, though very numerous, are inadequate to the cure of several diseases. The physician, therefore, cannot be blamed, who departs from the ordinary methods that do not succeed, to search for others more efficacious; however difficult it may be to bring them into general practice. Whatever were the defects of medicine in early times, the ancients undoubtedly were possessed of many good remedies, and some of the greatest efficacy, which unfortunately have fallen into disuse by the neglect of the moderns. Of these I shall mention a few, by which we may form a judgement of the rest.

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The uſe of wine in fevers, at leaſt the liberal uſe of it, is repugnant to the common ideas of curing an acute diſeaſe, eſpecially when attended with a delirium. But repeated experience of its ſuperior effects, hath long ago convinced me that, in many alarming caſes, wine is the chief thing to be relied on. Nor is the uſe of it confined to fevers properly nervous; but it may with caution be beneficially employed in all low fevers, whether accompanied with eruptions or not; and in all ſuch I have found it a pleaſant, cordial, antiſeptic medicine, and for the moſt part effectual.

That bathing the whole body might be another great reſource in fevers, I judged, as well from reaſon, as from the practice of the ancients; yet the fear of cenſure long with-held me from making trial of it. At preſent I could give many inſtances of its happy effects.

If the practice of bathing in fevers prevailed very much among the ancients,

cients, the drinking of cold water was no less familiar to them. They gave it freely about the height, in ardent and other fevers that were determined by a critical sweat, which it greatly promoted. By observing early what passed among the common people, I soon perceived that cold water might also be drunk with as much success as pleasure in low fevers.

Sailing, or living at sea, though for many ages past, scarce mentioned in relation to medicine, seems nevertheless to have held a distinguished rank among the great remedies of antiquity. How it came to be disused I cannot say; nor is it easy to foretell what reception it will meet with, now that an attempt is made to bring it again into practice. Whatever be its fate, I have not presumed to praise it on very slight grounds. But how earnest soever I may appear in setting forth its advantages, nay, though I have had repeated proofs of its efficacy, I shall not too confidently recommend the

general

general use of it, till confirmed by further observation. Amongst the various disorders for which sailing is proper, a consumption is the one I have all along had principally in view; and therefore hints relating to it will so frequently occur, as to make a considerable part of this work. Nor will a particular attention to that distemper be blamed, when it is considered how little successful physicians have hitherto been in treating it, and that the subject in question is upon a remedy peculiarly adapted to its cure.

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ERRATA.

Page 17, line 16, for *succession* read *succussion*.
42, —— 11, for *fumous* read *famous*.
57, —— 7, for *effect* read *effects*.
59, —— 9, for *successions* read *succussions*.
63, —— 4, and p. 94, l. 19, after *Cælius* add *Aurelianus*.
63, last line of the notes, for *cap.* 3, read *cap.* 8.
65, first line of the notes, for *inaqua*, read *in aqua*.
83, —— 10, of the notes, for *diri*, read *diu*. l. 18, for an *asterisk* put a *dagger*.
85, —— 1 and 2, of the note, for *maracta*, read *mari acta*.
109, —— 9, for *fairly*, read *fully*.
228, in the note, l. 3, for *transmisserant* read *transmiserint*.
282, —— 14, for *que* read *qui*.
283, —— 20, for *herbeceis* read *herbaceis*.

THE USE of SEA VOYAGES IN MEDICINE.

CHAP. I.

Of the air at sea.

THE powerful influence of the air on animal bodies, as the means of life and health, and the cause, as well as the cure, of diseases, is evident from daily observation. No effect, indeed, is so great, but that it may be expected from a fluid possessed of such properties as gravity and elasticity, in constant motion, and pressing us continually on all sides. A fluid, besides, endued with many adventitious qualities, derived from heat,

heat, cold, moiſture, and its various contents.

From the whole terraqueous globe there are conſtantly ariſing in ſteams and effluvia, more or leſs perceptible, innumerable particles of matter, being parts of all the bodies that earth and water contain.

Theſe exhalations muſt therefore differ greatly, according to the ſoil, waters, minerals, and other ſubſtances that abound in different places; and will affect the bodies of animals differently, according as theſe things are in their nature hurtful or ſalubrious. Hence the cauſes of healthful and unhealthful ſituations, of endemial and popular diſtempers, as well as of ſome ſingular diſeaſes, occaſioned by a ſituation unfriendly to particular habits.

Accurate accounts have been given us of the conſtitution of the air in general. The particular conſtitution of the air at ſea, in the ſeveral circumſtances which render it different from that

that at land, and with a view to health, hath not yet, as far as I know, been confidered. A more exact knowledge of this feems previoufly neceffary to an enquiry into the medical ufes of living at fea.

1. The vaft extent of the fea is to be confidered, as it is fpread over one half, at leaft, of the globe. From this wide expanded furface of water a great quantity of vapours is continually afcending, much greater in proportion than from the land. It is computed that, in the Mediterranean only, 5280 millions of tons rife in a fummer-day; and farther fouth, where the evaporating caufes are perhaps ftronger, the quantity will be ftill larger. Sea air then is more humid than inland air.

2. Vapours from the fea, or rivers, generate a much greater quantity of air than exhalations from the land. Winds therefore blow more frequently, and more varioufly, at fea, and, with refpect to land, from the fea.

 Hence,

Hence, in the island of Britain, we have them two-thirds of the year in the southerly or westerly quarters. This is likewise the cause why storms continue longer at sea than at land.

3. Exhalations at land arise from numberless different substances; and in a small tract of country we observe the air to be of very different qualities; and particularly of a different temperature as to heat and cold: the effects are manifest. One side of a lake, bog, or mountain, is healthy, the other unhealthy. But the air at sea is not impregnated with such a variety of matters; the vapour there being always of one kind, as the subject from which it is raised is uniformly and universally the same. Nor will the vapour, which so much exceeds in quantity, be affected by the many different exhalations from the land, at least to any considerable distance from the shore, or to any great degree. Sea air, therefore, is

more

more denſe, becauſe more ſimple, and conſequently more elaſtic.

4. The air at ſea is better ventilated; or, in general, it has a freer, quicker, and more conſtant motion. There are no impediments to its courſe here, as at land, from hills, mountains, rocks, and foreſts. For this reaſon it is more agitated, and purer, in oppoſition to that foulneſs which it contracts by ſtagnating. That there is more frequently a ſtagnation of the air at land, is evident from the clouds and hazineſs commonly obſerved hanging over land, by which ſailors diſcover it at a great diſtance. The ſtagnation of the air at ſea, even when it is not agitated by winds, is farther prevented by the many currents, and conſtant flux and reflux of the ſea. By reaſon therefore of the greater humidity and denſity, and quicker progreſſion of the air at ſea, its action muſt needs be increaſed. Hence winds are more violent, or have greater force at ſea than at land; eſpecially as they are, more-

over, frequently charged with much ſaline matter. For,

5. A great deal of marine ſalt is raiſed in the ſpray, toſſed up and impelled by the winds: and in an atmoſphere thus impregnated with a ſtrong ſaline humidity, do ſea-faring people live for weeks or months together, and have their bodies almoſt conſtantly moiſtened therewith.

6. The ſea air is warmer than that at land. Thoſe at ſea ſeldom complain of cold, but are very ſenſible of a change when they come into ſoundings; much more for ſome days after they firſt come to live on ſhore. The earth is a dead inert body, and cannot, by the greateſt force of the ſun, be heated above a foot or two deep, and ſoon cools again. This great body muſt occaſion a colder atmoſphere, and cool the ſea to a conſiderable diſtance. Accordingly ſailors judge land to be near by the coldneſs of the ſea-water, which ſtill increaſes as they approach the land. Winds blowing over

great

great tracts of land, or where froſt and ſnow abound, are loaded with many rigid chilling particles. Hence it is, that north and eaſt winds are ſo cold; while thoſe from the ſouth and weſt, where there is nothing but ſea, I ſpeak with regard to our own ſituation, are, for the moſt part, mild, cheriſhing, and warm. The greateſt heats, on the contrary, in thoſe parts of America neareſt to us, are brought by eaſterly winds, blowing over a vaſt tract of ſea. The ſea-coaſts with us, even pretty far north, are rarely ſubject to hard froſts, or lying ſnows. Inſtead of theſe they have more open ſeaſons and more early harveſts than other places. Were not the ſea warmer, ſea-faring people could not, but with the greateſt hazard, bear to be ſo often drenched with it as they unavoidably muſt be.

7. There is in the air at ſea, a conſtant undulatory motion, correſponding to the undulatory motion of the ſea; whence a greater colliſion and

conquaſſation, and an increaſed action of it in the way of impulſe.

8. That there is a true ſpecific difference between the air at ſea and the air at land, will appear more evidently, if we conſider the nature of ſea vapour. That the great quantity of vapour which riſes was intended only to ſupply this earth and atmoſphere with moiſture, is too limited a notion; there being much more raiſed than is ſufficient for that purpoſe, which appears from the vaſt deluges of rain that fall at ſea. As ſome other end therefore muſt be ſerved thereby, we naturally conclude that this vapour contains ſomething elſe beſides mere water.

And that a portion of ſea ſalt may aſcend in the vapour is not improbable; all effluvia being the formal ſubſtance of the bodies from which they are derived. Nature has ſecret methods of raiſing and diſperſing ſalts; and wherever there is plenty of ſuch matter, and the means for acting

acting upon it, there theſe ſalts muſt be plentifully raiſed. At ſea therefore, and in the regions where ſalt abounds, there will be, at leaſt, an equal quantity of effluvia from common ſalt as from other ſubſtances, which are diſcovered in great abundance in the air. Though evaporation, cauſed by heat, may not raiſe much foſſil ſalt, winds ſkim off a fine pellicle, or lick up the ſurface of the water. The greater freſhneſs of the ſurface of the ſea is attributed to the exhalation of the ſalt; which ſhews that, however fixed, it may be diſſipated; for the common exhaling cauſes are able to operate upon bodies the moſt ponderous; ſo that even gold itſelf ſuffers an abraſion, and may have its parts ſo divided as to mix with the air, and be ſuſpended therein.

But as the oils, ſulphur, and bitumen abounding in the ſea, are more diſpoſed to exhalation, they will alſo riſe. This is confirmed by the ſmell of ſea water; as all ſmell imports ſomething

ſomething more than mere water, which is inodorous. Theſe ſulphureous oils, incorporated with air, produce many of the moſt conſiderable appearances in nature. Beſides, being in ſome degree viſcous, they muſt involve many particles of ſalt, which will likewiſe be carried up in the vapour.

A great deal of bittern ſalt too * is raiſed at ſea; and being diſperſed in the atmoſphere, becomes the parent of other ſalts. It is ſaid, moreover, to enter largely into the nouriſhment of plants. All nature is ſtored with ſalts, and theſe muſt be derived from ſome grand ſource. Salt abounds moſt in the ſea, where it is ſubject to the forcible action of all the exhaling powers, the ſun, winds, and ſubterraneous heat: and they confine the uſes of it too much, who ſay that it is deſigned only to preſerve the waters of the ſea from corrupting, and to anſwer ſome

* Bittern is the lixivium which remains after making common ſalt, and contains many different ſalts.

alimentary and mechanical purposes. By means of an immense evaporation from the sea, the air is filled with a variety of saline corpuscles, in order to accomplish one great intention of nature, and of constant necessity, the propagation of salts through the universe. The natural salts indeed are few, their combinations and productions infinite.

Even the notion of an analysis at sea has obtained; and that by means thereof a peculiar acid spirit is constantly ascending in the vapour, more or less, according to places and circumstances. Sea air in the warmer climates is so corrosive that it soon destroys all metals and stony bodies. May not the acid of the air originally exist in the sea, till disengaged from the masses that contain it? By a wonderful process in nature all bodies are continually resolving into their first elements, or reproducing new ones, in a perpetual round.

CHAP.

CHAP. II.

Of sailing, as an exercise, compared with other exercises.

VArious exercises have been contrived, or adopted, for the use of medicine. They may be distinguished into such as are performed by a voluntary muscular action, and those in which the body is passive. Of such approved efficacy are all the gymnastic methods, that one or other of them becomes in most diseases, more or less, a remedy; nay sometimes solely perfects a cure. And to render them more certainly beneficial, they are now carefully appropriated to the particular distempers in which long experience hath shewn them to be every way fit and useful.

Walking hath been accounted best for the purposes of nutrition, the distribution of the chyle, and plumping up the solids; and is the proper exercise of the studious. It is said,

said, moreover, to be the fittest for preserving health, while riding is esteemed the best for restoring it. Indeed, where it agrees, it is a manly cheering exercise, in a special manner adapted to the low-spirited and hypochondriacal. The particular condition of the gouty and corpulent, who are incapable of any great bodily exertion, admits only of vehicles, and other passive exercises, or that of the voice. The weak, hectic, and phthisical, as they can bear no higher, are directed to use the most gentle, such as, friction and gestation.

Not only is the kind of exercise prescribed according to the particular disease, but the necessary conditions, respecting the time, the degree, and the manner of it, are, with no less caution enjoined. Regard must be had likewise to age, sex, seasons, and the like. Every kind and degree is not fit for every constitution, far less in every malady, or at all times. What is only healthful, and a mere recreation to one,

one, may to another be painful and hardly fuſtainable. The uſual exerciſes of an athletic, which he performs with eaſe, would ſoon weaken, and wear out, the tender frame of a valetudinarian, or puny ſtripling. Vigorous bodies will habitually, and without injury, undergo the hardeſt labour, expoſed to all the inclemencies of weather and ſeaſons. Delicate ſubjects, on the contrary, cannot, but with pain and hazard, bear the ſlighteſt exerciſe in open air, except in the mildeſt weather and ſeaſons. Some diſeaſes require briſk and conſtant exerciſe; many will admit of neither. When the ruptured blood-veſſels pour forth their contents, thoſe motions which were ſafe and familiar before, would now be highly improper and dangerous. Exerciſe raſhly undertaken in great heats of body or weather, in the acceſſes or attacks of diſeaſes, might endanger inflammation, diſturb the œconomy of nature, confirm the diſeaſe, or cauſe a fatal tranſlation

ſlation of it. In the choice of exerciſe, therefore, many things muſt be attended to, in order to determine, from the circumſtances of the habit or diſtemper, which is truly proper and preferable.

I have long thought that no exerciſe deſerves our attention more than ſailing, whether conſidered in itſelf, or as accommodated to certain diſeaſes, in which it ſeems an appropriated remedy: nor can I help wondering that, while other exerciſes have been improved into very extenſive uſe, this, though attended with many and manifeſt advantages, ſhould be ſo little regarded, or ſo little recommended, eſpecially in ſuch a maritime nation as ours.

1. The firſt thing obſervable in ſailing, is, the ſea-ſickneſs. This does not ariſe from any offending matter in the ſtomach or inteſtines, from the ſmell of the ſhip, or of the ſea; but is owing entirely to the unuſual agitation, cauſing ſuch a commotion of the parts

parts within the head, as affects the whole ſyſtem of the nerves in their origin.

2. At ſea one is, for the moſt part, carried quickly, or as it were, driven, through the air, and often againſt adverſe winds; by which the action of the air is much increaſed.

3. The rolling and toſſing motion of the ſhip is a great addition to the exerciſe; as the muſcles are thereby kept conſtantly and alternately in action, through the whole body, in order to preſerve the equilibrium.

4. The conſtant undulatory motion of the air, above what it has at land, is a circumſtance which in effect is a conſiderable exerciſe of itſelf. Beſides the ordinary gravity and preſſure of the air, it will act on the body with a force increaſed by the manner of its application, in repeated ſtrokes; ſometimes on one part, ſometimes on another, by a ſudden compreſſion and expanſion: ſo that while one ſide ſuſtains a ſtrong preſſure, the other ſuf-

fers

fers only a common degree of it, or less; and sometimes the body is squeezed between opposite pressures. We may form some idea of this from the action of a fulling-mill.

Sailing seems to correspond with most other exercises in their manner of acting, or their effects, and indeed to comprehend them all. When it is not vehement it resembles walking, in the gentle continued action of the muscles with which that exercise is accompanied, when used in a moderate degree. The benefit derived from riding depends upon the continued succession which the body suffers, and on being carried with considerable quickness through the air. Now, in sailing, there is a greater succussion from the vomiting; and in a ship driven by winds, a person is carried through the air with greater quickness than in any other ordinary exercise. Again, at sea a various action of the muscles is produced by the motion of the ship, and the constant ef-

forts that muſt be uſed to prevent falling; by which the body is put into all that variety of conſtrained, ever-changing attitudes obſerved in bowling, ſkating, rowing, and the like exerciſes, and in common labour. Exerciſe in a ſwing, or a coach, which ſometimes cauſes vomiting, comes neareſt to ſailing, as does likewiſe our firſt exerciſe, the cradle.

Sailing then is an exerciſe compounded of geſtation, and that of a particular kind; a preternatural ſpaſmodic motion in vomiting; and a ſingular action of the air: nor can any other exerciſe lay claim to ſo many and ſuch peculiar advantages.

It is conſtant: for as the ſhip is in perpetual motion, day and night, ſleeping and waking, one or other of theſe exerciſes always take place, contrary to all other exerciſes, in which the ſick are uſually employed but a ſhort while together, and the intervals berween the times of exerciſe are long.

Though

Though failing, confidered in all its complex circumftances, and powerful effects, is reckoned among the higheft exercifes, fo as in fome to caufe great perturbation, it is really, after being a little ufed to it, the moft gentle, and excites no irregular motion, or undue impetus of the fluids, with fubfequent wafte of them. Therefore it is not attended with laffitude, or lownefs of fpirits, with hurry and confufion, as other exercifes often are. A man may fit or ftand, walk, lean, or lie, as he likes beft, and fo relieve his body by a frequent change of pofture, and prevent wearinefs. Other exercifes of efficacy cannot be undertaken by thofe who are weak and wafted, under fever and inflammation, or in a colliquative ftate, and many other fuch cafes; and lower exercifes are infufficient for any great purpofe of cure. But failing is of mighty energy, yet fafe; and, excepting the feafickness at firft, is eafily fuftained. Scarce any circumftance of a difeafe

in which it is proper, can forbid its ufe, while the frame of the body or mind is not too much broken, nor any part corrupted: nay, even in this laft cafe it is often highly proper.

To all thefe, as farther advantages, we may add, that at fea, you conftantly breathe a peculiarly falutary air; and that the action of the air is greater, and increafed by your being often carried through it with uncommon velocity. There is likewife a greater action of the mufcles, of all the mufcles of the body, of mufcles not exercifed in any other ordinary exercife, or not exercifed in the fame manner, nor fo forcibly, nor with fuch effects and continuance. Nor is there occafion, in undertaking a voyage, for fo many precautions as are neceffary to be obferved in other exercifes.

CHAP.

CHAP. III.

Histories of cures by living at sea.

HISTORY I.

Consumption.

IN 1743, a young gentleman, whose mother and elder brother had died of a consumption, lost his appetite entirely, his flesh, and, which alarmed him more, his strength to a great degree. He had a dry husky cough, a fever with night-sweats, a meagre countenance, and a high hectic flush: in short, he seemed to be following his brother very fast, being of the same delicate make and complexion, and nearly of the same age. I judged it vain, and a losing of time, to go the same formal fruitless round with this brother that I had but just before gone with the other; and there was no hopes of a cure, but by putting a speedy stop to the disease in this ad-

vanced ſtage. It was determined to make immediate trial of ſailing. The firſt day of his being at ſea he got a keen appetite, which increaſed ſo much, that in a few days he could eat heartily of the ſhip's proviſions at every meal. He coughed little; and, as the noiſe hindered his ſleeping, he frequently walked on deck in the night without hurt. It blew ſo hard all the voyage, which took up twelve days or more, that even ſome of the ſhip's crew were ſea-ſick; and they were once about to leave the veſſel, or run her aſhore. He was not ſick; and by the time he got to Briſtol all his complaints were gone. Having now an opportunity, he drank, as had been directed, the hot-well water for three weeks. After being a month longer at ſea, the weather all the time blowing and foul, he returned, near the end of November, fat, hale, and ſtrong; and has continued ever ſince in perfect health.

HIS-

History II.

Consumption.

A strong, healthy, young woman, in aſſiſting to extinguiſh a fire in the night, worked very hard for ſome hours, with ſcarce any clothes on; by which ſhe was exceſſively heated, and ſweated profuſely. When the affair was over, ſhe neglected going to bed, or cooling herſelf gradually; but after ſhifting herſelf, went about her ordinary buſineſs. In a few days a dry, hard, tearing cough ſeized her, with great difficulty of breathing, which increaſing, waſted her exceedingly in a ſhort time. All winter and ſpring ſhe continued in a way that, conſidering the greatneſs of the malady, and of the cauſe, gave ſmall hopes of her recovery, but what were founded on the diſeaſe becoming chronical, the ſymptoms not increaſing, and a more favourable ſeaſon coming on. At length, after a tedi-

ous use of many remedies, in summer she got free, in a good measure, of her cough, recovered flesh, and a tolerable state of health. But her breathing continued bad, and was so much affected by any motion or labour, that the gentlest presently overcame her. Thus she went on for some years, upon the whole gaining more strength. When, contrary to expectation, she had recovered a sort of settled health, in summer, without any sensible cause, her cough returned with greater violence than ever; attended with profuse night-sweats, looseness, and a surprising loss of flesh and strength. Nothing was able to stop the rapid progress of the disease. After much scruple, because of her weakness, I advised a voyage; but with more freedom at last, as she herself was fond of trying it. In two months she returned in all respects well, except that there seemed to be still some small difficulty of breathing, which, however, was no impediment

to

to her labour or exercise. Sometime after she married, left her own country, suffered hardships and vexation, bore a child, became consumptive it was said, and died. When I say that a voyage lasted so long, it must, for the most part, be understood that the patient was not a third of the time actually at sea.

History III.

Consumption.

A young man, by riding all day in the rain, took cold. In a short time, a severe, dry, frequent cough came on, with short breathing, constant fever, and a great discharge of watery phlegm, from the excessive labour in coughing. Notwithstanding all that could be done to subdue the fever, and mitigate the symptoms, in six weeks time no advantage was gained; and a consumption seemed to be fast approaching. He was advised to go

to

to sea. The vessel had not proceeded far, till, by the shifting of the wind, she was forced in again, and rode twelve days in an open bay exposed to the south, the weather and season being favourable. Here living in the sea air, and suffering the gentle exercise of the ship, his symptoms abated so much, that he laid aside his design of going to sea, and from this time daily recovered; nor has he ever had the smallest tendency to a relapse, though it is now many years since.

HISTORY IV.

Consumption.

A YOUNG gentleman catched a severe cold in winter, which was soon succeeded by a constant, vehement, dry, hoarse, hollow cough. Not recovering, though somewhat better at times in the following spring and summer, he made a long journey in the autumn. I now first saw him. The cough remained, with quick breathing,

breathing, heaving of the ſhoulders, and inability to make a full inſpiration. He was frequently ſick and faint, and waſted exceedingly, without fever, loſs of appetite, or any increaſed evacuation. His waſted body reſembled very much the aridity of old age. Two or three months, if ſo much, ſeemed to be the utmoſt term he could live to in this climate. He went to ſea immediately. Juſt before this he had taken the mercurial pill, but with no evident effect. The firſt week at ſea did not produce any change, except that he got a better appetite, which, on going aſhore for ten days, grew worſe. On putting to ſea again, his cough abated, and gave him very little uneaſineſs during the reſt of the voyage; his appetite increaſed; he gained good ſpirits and ſtrength; and ſeveral large boils ſuppurated under his arm-pits before he reached Liſbon, which was in thirty-ſeven days from his going laſt on board. Contrary to what had been adviſed, for I

proposed his living at sea altogether, if it agreed with him, he was persuaded to stay there in a country place, where he continued slowly to recover, but not to such a degree as he had expected. He returned however in May greatly mended; yet not so much as to make it safe for him to remain in Britain during the winter; which he therefore passed in Italy. Next summer he came home every way well, except that he had not got quite rid of his cough, which may expose him to some danger; but this he hopes to wear off by pursuing a sea-faring life; having always found the most sensible relief from coughing, and having had his health best at sea, and being sensible of a decline in it when he lived but two or three weeks ashore. Though the weather was very stormy during the whole of this last voyage of seven weeks, he thought it did him the most service, and restored him to something like a confirmed state of health.

Such

Such was this patient's ſituation when the above relation was given in a former edition of this treatiſe. After that he went to North America, where he lived ſeveral years ſeemingly in good health. His affairs in Britain obliging him to return, he met with diſcouragement and uneaſineſs here; his health declined, his cough returned, and terminated in a mortal purulent conſumption.

HISTORY V.

Nervous pain of the ſtomach.

A YOUNG gentleman, bred to the law, was ſubject to a pain in the upper orifice of his ſtomach, derived perhaps from one of his parents, who was conſtitutionally ſubject to nervous complaints. A ſedentary life, and much writing increaſed the diſorder, which at laſt became ſo conſtant and ſevere, that he was rendered incapable of all buſineſs. Two years he paſſed in this ſtate, with very little remiſſion,

miſſion, and ſcarce any interval free from pain; ſo that ſometimes a worſe diſtemper was apprehended. Every thing uſually preſcribed, or recommended, in ſuch a caſe, was tried; nor were ſuppoſed ſpecifics omitted; but all was to no purpoſe. He went to ſea about the end of September, and was ſeverely ſea-ſick all the time he was on board, but ſoon found benefit; in ſo much that, after having been abſent near three months, he returned free from all his complaints. Two years after this he had ſome ſlight returns of his illneſs, and made another ſhort voyage. Since that time, and indeed from his firſt going to ſea, he has always been able to attend cloſely to buſineſs.

HISTORY VI.

Vapouriſh languor and fever.

A YOUNG gentleman whoſe father was of a lax phlegmatic habit, grew ſo faſt that, at ſixteen or ſeventeen, he was

was uncommonly tall. From this quick growth, and an hereditary constitution, he was ſlow, languid, and unable to bear labour or exerciſe. A vapouriſh kind of fever ſeized him. He had pains in his ſtomach and ſides, which were tender to the touch; and a ſoreneſs, or pain like that from a bruiſe, all round the cheſt internally, made it difficult for him to turn in bed. There was a ſlow fever, with coſtiveneſs and palpitation; his tongue was white, foul, and moiſt. He had little thirſt, but great inappetency and languor. A fortnight, or more, ſcarce finiſhed this courſe, nor could he be reſtored from one fit before he was ſeized with another. I had indeed ſeen him recover, in ſome meaſure, from ſeveral fits; but could not, in the ordinary way, hit on the means of preventing a relapſe. I therefore adviſed the ſending him to ſea in the intervals. He made two or three ſhort voyages, with much advantage to his ſtrength and ſpirits.

As

As he grew ſtronger, he had leſs frequent returns of his illneſs; and for ſome years, only a ſtated annual fit. Of this he does not make ſo much account as to think failing any longer neceſſary; enjoying at other times, as good health as a conſtitution ſomewhat delicate will allow.

HISTORY VII.

Conſumption.

A GENTLEMAN catched cold in Virginia, under which he laboured ſeven or eight months. He came over to Britain in winter, and was ſenſibly better during the voyage. He coughed much; had great ſtuffing and conſtriction of the breaſt; laboured much in breathing; and upon any increaſed motion, ſometimes on walking only the length of a ſtreet, he would ſpit blood. He had night-ſweats, and was conſiderably waſted. I had no hopes but of keeping him from growing

 worſe,

worse, till the season should be more favourable. Though, by the use of remedies, and a very exact regimen, he found some relief, and the disease did not any way increase, yet there was but little prospect of his recovery, especially as a consumption had been fatal to his family. In May he went to sea again. The information I received when the ship returned, was, that he grew in all respects easy, and continued so well during the voyage, that he thought himself at liberty to return to his former way of living. When he got to Virginia he renewed the use of the cold bath to which he had formerly been accustomed. Soon after he was suddenly taken ill on a journey, and died in a few days.

HISTORY VIII.

Consumption, with purulence and spitting of blood.

A YOUNG gentlewoman, of a delicate florid complexion, fell into a

consumption; a distemper of which her mother, a brother, and a sister had died not long before. For some months she had a troublesome night-cough, with sweating, spitting of blood, a suppuratory fever every two or three weeks, and a great discharge of pus. A heavy, but very uneasy pain in the left side of the thorax was not her smallest complaint. By the use of remedies she seemed to mend considerably: but trusting no appearances in such a deceitful malady, I urged her going to sea, and she found herself much better by following that advice. Being obliged to live some days on shore, in a close place, when the weather was very warm, she was again seized with spitting of blood, from which she had been a long time free. In coming home, the ship put into a harbour, and there lay wind-bound a month. Here she sailed every day in a boat. Her return gave me equal pleasure and surprise. She had recovered her flesh, spirits, and looks,

and none of her complaints remained, but a small degree of hoarseness. Overjoyed, and secure, as she imagined, of health, she would not be persuaded to go to sea again, saying she was very well; though from the circumstance of time spent in sailing, the great degree of the malady, and the remaining hoarseness, it was too evident, notwithstanding so great an amendment, that her cure was far from being complete or certain. In winter she had some slight returns of her spitting of blood, with matter; but was every way much easier than she had been the preceding winter. In spring a slow fever, then epidemical, seized her, which she got over; but from this time languished, became quite consumptive, and died.

HISTORY IX.

Spitting of blood and suppuration of the lungs.

A STRONG labouring man, from a weight falling upon his breast, was

taken with ſpitting of blood, which often returned; and ſometimes he would ſpit a pound or two at a time. He had frequent ſuppurations, with large expectoration of pus; and was ſo weak and emaciated, that, during the ſuppurations, he was confined to his bed. Under a ſtrict regimen, and abſtinence from ſpirituous liquors, which he had formerly uſed too freely, he made two or three ſhort trips to ſea in ſummer. From his firſt going to ſea he had no ſpitting of blood; the matter he uſed to ſpit, gradually dried up; and he recovered ſo much, that, in October, when I happened to ſee him, he had a hale look, felt no remains of fever, and was able to go about freely, but not to follow his former occupation; a little cough ſtill remaining. Being obliged, in very bad winter weather, to ride a journey in great haſte, he catched cold. A new ſuppuration came on, a copious purulent ſpitting quickly waſted him, and he died.

HISTORY X.

Megrim.

A GENTLEMAN, long afflicted with a megrim, had occasion to go to sea, without any regard to his distemper, and was cured; though the voyage was short, commonly a few hours sail.

HISTORY XI.

Consumption from a pleurisy.

A YOUNG gentleman, many years ago, escaped with difficulty from a violent pleurisy by losing a great deal of blood, and was now in equal danger from the consequences of it. The pain of his side continued, he had a severe cough, and large expectoration, attended with melting sweats, and a remarkable loss of flesh. Under these he laboured many months. In summer the sweating and expectoration abated; but a hard, dry, continual cough remained; and such were his

weakneſs and difficulty of breathing, that he could not bear the ſmalleſt exerciſe without frequently reſting. He undertook a voyage of five or ſix weeks, out and home, and in a few days found himſelf relieved. The cough ceaſed, his appetite increaſed, and he recovered fleſh and ſtrength; inſomuch that he frequently did the buſineſs of a common ſailor for his amuſement. His breathing became eaſy. He returned in good health; and by going to ſea three or four times, once every twelve months, has continued ſo; but in froſt, or an eaſterly wind, he is ſubject to a cough and difficulty in breathing.

History XII.

Rheumatiſm and nervous complaints.

The following hiſtory is given in the gentleman's own words. For two years I languiſhed much from great relaxation of nerves, occaſioned, I ſuppoſe, by living many years in a warm

 climate,

climate. I ſeldom failed to be attacked three or four times a year with fevers and agues. I ſuffered extremely from pains in my back, thighs, arms, and ſhoulders; ſo that I could ſcarce raiſe my body, or ſtand upright. I loſt my appetite, fleſh, ſtrength and complexion; and had great laſſitude, and averſion to buſineſs. For theſe complaints I took large quantities of medicine, and uſed warm baths and dry cupping, but without any real benefit. When juſt ſetting out on my Weſt-India expedition, I was taken with a violent pain in the left ſide of my breaſt for which I was blooded, and applied many things both externally and internally. Theſe not anſwering the intention, firſt one bliſter and then another where applied to the part, without effect. Before the laſt healed I was obliged to go on board. I had been but five days at ſea when my appetite grew better. In ten or twelve days I found myſelf conſiderably ſtronger; though I obſerved no regi-

men in diet, nor did I take any medicine whatever. The pain in my breaſt continued, but was leſs violent. However I grew daily better, both during my voyage to St. Kitts, and while cruiſing among the leeward iſlands; ſo that when about to return I was quite fat, had a good complexion, and felt no pain in my breaſt, but on making a full inſpiration. After my return to Virginia, the pain returned, and continued to increaſe till I went to ſea again; when it again abated ſo much in a fortnight that it gave me little trouble. I had been but a ſhort time in Britain when it increaſed greatly; and though by the advice of ſome of the moſt eminent of the faculty, I have found relief, it ſtill returns from time to time.

This diſeaſe, changing its ſeat, became a nervous headach, violent, and of long continuance; which required frequent and large bleeding, and was much increaſed by the motion of the ſhip on going to ſea.

HISTORY XIII.

Consumption.

A GENTLEMAN, whose sister died lately of a consumption, was habitually subject to a cough, which increasing, with large expectoration of thick sweetish matter, grew very troublesome, especially in the night, and wasted him much. During a six weeks voyage he scarce ever coughed. But going ashore he lay in damp sheets, got cold, and the cough became again very troublesome. He returned nevertheless in winter, fat, well-coloured and strong, and continued so a year or more. After that his cough increased; a true purulent spitting came on; he had frequent large hemorrhages from the lungs; and notwithstanding the best means that I could devise, the event proved fatal.

It is presumed that, in this case, a consumption was, for a considerable time, prevented by sailing; and might have

have been kept off much longer, had not an accident caused a return of the cough, and the remedy by sailing been ever after declined.

History XIV.

Ulcer of the breast and lungs, with spitting of blood.

A gentleman, from the kick of a horse on his breast, had a spitting of blood, which frequently returned, attended with a large, purulent, saneous discharge, mixed with many pieces of membrane. He complained also of a sense of weight and soreness of the parts internally. Thus he continued several years wasting and languishing, though he made use of much medicine, prescribed by the best physicians in different places; nor was he ever free, for any time, from these discharges and complaints, except once for the space of a month. After coughing up larger pieces of membrane than usual, the discharge ceased again for some weeks,

weeks, which gave him great hopes that now he was to have no more returns of it. I insisted however, on his going to sea; arguing that this was the proper time for assisting nature to complete the cure. He was absent only a few weeks, eighteen days of which he was at sea, and one fortnight ashore, where he drank milk; yet he returned surprisingly mended; had got a great deal of flesh, and a ruddy complexion; and was able to walk several miles without being fatigued; whereas before he found it difficult to go slowly about, in the course of an easy business. He has now been many years free of all complaints from this cause.

Was living at sea the cure here? or, did it only serve to confirm the cure? It must be owned that it was undertaken at a lucky time. Would a journey by land have had such a remarkable effect in so short a time, or a much greater, even though we should consider it only as having restored the

patient

patient from a mere languid ſtate, after ſo long an illneſs? Would it have been as ſafe, and as eaſily ſuſtained in ſuch a delicate and diſeaſed ſtate of the lungs, and ſuch a degree of weakneſs?

HISTORY XV.

Doubtful and difficult recovery.

A GENTLEMAN, on account of a complicated illneſs, entered upon a long courſe of medicine. Before his diſeaſe was half ſubdued, he was ſeized with a violent epidemical dyſentery, which interrupting that courſe, gave an opportunity to the former diſeaſe to get head again, and ſo occaſioned the courſe to be protracted ſome months longer. The diſeaſe being at length ſo far overcome, that it was hoped time and other methods would carry off the remainder, the patient ſpent many months at home, in hopes of being perfectly reſtored. But the ſlow return of his health, and his continuing long emaciated, made the event

event doubtful, and gave great apprehensions of a hectic and consumption. Thus weak and wasted, with his legs much swelled, he beat about in the channel three weeks, in the depth of winter, and in a continued storm. The vessel putting in again, he lived some weeks ashore. During the storm, almost every one on board was sea-sick but himself, who the rest expected would never see the end of the voyage. He ate and drank heartily the whole time. Some foul deep scabs, which hitherto could not be cured, now sloughed off, and the parts healed completely. By the time he reached Lisbon, which kept him seven days longer at sea, he was almost wholly recovered; and has now long enjoyed a confirmed state of vigorous health.

HISTORY XVI.

Spitting of blood.

A YOUNG gentleman, tall, and inclining to be thin, with a soft, smooth skin,

ſkin, and lank hair, was ſeized with a ſpitting of blood, and had ſeveral returns of it to a conſiderable degree. After the uſe of ſome remedies, I adviſed him to go to ſea. The voyage out was about ten days. Coming home in winter, in a ſmall deep-laden veſſel, they laboured exceſſively, for ſome weeks, in a heavy ſea, and ſtormy weather, till at laſt they were ſtranded; after which the patient lived four months in a low, wet, foggy, maritime place. Under ſuch a threatening appearance, as is above deſcribed, a ſea life was thought the moſt ſpeedy and effectual way, not only to ſecure him againſt a relapſe, but to prevent a conſumption, which, ſome years before, had been fatal to two of his family, about the ſame time of life. Neither the terror and fatigue he ſuffered from the danger he was in, nor living ſo long in an uncomfortable place, cauſed any return of his diſeaſe, or any way impaired his health. He grew fat and ſtrong,

and

and has now for ſome years continued in all reſpects well.

Since the above account was firſt written, the gentleman went to ſettle in the Weſt-Indies, where he enjoyed a good ſtate of health for ſeven or eight years. He then fell into a conſumption, and returned to Britain; where, notwithſtanding the length of his voyage home, he lived but a ſhort time. The circumſtances and period of his diſtemper, when he laſt put to ſea, are not known.

HISTORY XVII.

Vapouriſh pains, languor, and fever.

A YOUNG gentlewoman, during the winter and ſucceeding ſpring, laboured under pains of the ſtomach and belly, eſpecially in the right ſide; loſt her appetite and ſtrength, and was brought extremely low through exceſs of pain. She took many things, which either did her no good, or which her ſtomach would not retain. Her weakneſs and diſeaſe

diseafe increasing, and other remedies affording little or no relief, I advised a voyage to fea. Part of a letter from a reverend clergyman, her relation, will show the effects of it. "My "niece, after much languishing, and "many fits of pain, adventured at last "to follow your advice. Though she "was so weak and sickly, that with "difficulty she got to the vessel, and so "ill by the way, and for some time "after she landed, that they were a-"fraid of the consequence, yet she "recovered apace; and after another "fit of vomiting in her return, she "seems to be so much changed for "the better, as could hardly have "been imagined." She was five hours going out, and fixteen in the return. By this trip she gained so much strength, and freedom from pain, that she was able to bear riding, from which, (having an aversion to the fea) and change of air and amusement, a thorough cure was expected. But she still continued all fummer and au-

tumn

turnn in a doubtful way. At length being perfuaded to repeat the fame voyage, fhe foon recovered entirely.

Several others, under great languor, pains in the fide and ftomach, flatulence, want of appetite, vomiting, and the like vapourifh complaints, have affured me that they found more real benefit from the fea-ficknefs, than from all they had ufed before; fo that a fenfible turn was given to the diftemper, which ended in recovery.

History XVIII.

Confumption.

A young gentleman, ftudying the law, contracted a hard, dry cough, which held him long, with profufe night-fweats, and great lofs of flefh, ftrength, and appetite. Encouraged by the example and fuccefs of fome of his acquaintance, who were thought to have been far gone in a confumption, he readily embraced the propofal of going to fea. The fhip was unluckily detained in port fix weeks

longer than was intended; in which time his legs ſwelled, and a looſeneſs came on. In the firſt two days he was at ſea he vomited much bile and phlegm; his ſweating, looſeneſs, and the ſwelling of his legs went off; and he could eat. He began now to ſpit matter in great quantity; and, waſting daily, though he ſtill retained his appetite and ſpirits, died on the voyage aſhore.

Had the voyage been begun when firſt propoſed, and the abſceſſes ſooner broken, before the colliquative ſymptoms had made ſuch a progreſs, we may judge from the benefit received even in ſuch a weak ſtate, that there were grounds to expect at leaſt a longer reprieve, if not a better event.

HISTORY XIX.

Aſthma.

A CLERGYMAN of the moſt relaxed frame, habitually aſthmatic, ſometimes to a great degree, and almoſt diſſolved

diſſolved into phlegm, when unable to uſe any other exerciſe of efficacy, made two voyages to ſea. His aſthma was not ſo much bettered, as his health was improved in other reſpects. Indeed, in ſuch a great diſeaſe, more could hardly be expected; as the time of his being at ſea was always ſhort, nor was he affected with the ſea-ſickneſs.

HISTORY XX.

Conſumption.

A GENTLEMAN, with ulcerated lungs, undertook a voyage. Fear and the ſea-ſickneſs ſo diſcouraged him, that he continued only eleven days at ſea. The benefit he might have received, even in this ſhort time, was interrupted by his going on ſhore for ſome part of it. He now made a long journey, drank Briſtol water on the ſpot, uſed all the moſt approved remedies, returned to his own country, and, after languiſhing three or four months, died. He was of a conſumptive family.

History XXI.

Palsy.

Many remedies having been prescribed in vain, to a gentleman afflicted with a pretty high degree of universal palsy, I advised him to make a long voyage by sea, to drink the sea-water, to bathe in the sea, and, when he got to America to use rattle-snake broth. The disease had, in the course of a good many years, come on gradually; he walked ill, and his sight was confused, from a constant tremulous motion in his eyes. A fever which seized him on going over, it was thought would have done him service; but being of the depressed kind, served only, for the time at least, to enervate him more. After living about a year in the country, he returned much the same. This disease, in like circumstances, I have never seen cured by any method.

These are all the instances in which I have directed sailing and living at sea,

ſea, for the cure of diſeaſes *; excepting a few more, from which nothing could be inferred, as, in theſe caſes, it was undertaken with great diſadvantages. I have been informed of other inſtances of its thorough efficacy, in ſome diſeaſes of a worſe kind, and can fully credit them; but as I am not able to give an exact account of the circumſtances, I only mention them. Indeed I am perſuaded it would appear, if attended to, that many great cures are daily obtained by this method, though they were never ſo much as imagined to be owing thereto. As the experience here laid before the public is not the reſult of vague information, or a few ſlighter trials, it certainly ought to excite attention at leaſt; and as plain facts ſpeak for themſelves, I ſhall only offer the following ſhort remarks on the foregoing hiſtories.

In almoſt all of them the good ef-

* Theſe indeed were all when this treatiſe was firſt written. A ſupplement has been made ſince, containing a number of cures which are here annexed.

fect of sailing is evident, and the more remarkable as it happened in so many cases successively. The last four are not to be reckoned.

Hath any other method done so much good, in so many instances of the kind?

The benefit received was owing altogether to sailing, for no other remedy was used, during the time the patients lived at sea.

It did not depend wholly on the exercise; for some were not sick at all, or but very little; and that mere gestation should resolve tumors, dry up pus, and heal ulcers, can hardly be conceived; or that those effects were entirely owing to an increased action, or greater purity of the air.

I have recommended sailing in consumptive cases, chiefly, as it is particularly suited to their cure; and seeing no adequate remedy has yet been discovered, surely that should encourage, and will justify a serious trial of this in a disease so frequent and so fatal in Great-Britain.

Not

Not only is this method suited to the cure of a consumption in general; but, which cannot be said of other remedies, sailing and sea-air are equally accommodated to the different kinds and stages of it; that is, both to the crude state of simple obstruction, and to purulence; or ulceration from different causes.

It appears farther to be no less adapted to those concomitant circumstances, in which other exercises are frequently hurtful; namely, fever, inflammation, and spitting of blood.

The practice, if no other advantage is gained by it, procures at least, a manifest abatement of symptoms, or a suspension of the disease; which is a point of great moment; as thereby an opportunity is given of attempting a cure, by regular courses of medicine, if these be requisite, and greater benefit expected from them.

That several of the consumptive died, after trial of a sea life, is no just objection to the method proposed. The lungs, when once affected to any degree, remain ever after, or for a long time,

weak, wasted, in part obstructed, or impaired in their motion; and, from these causes, liable to be again affected; till, in a course of time, the parts are strengthened, callosities removed, and the vessels rendered pliant and permeable.

The relapses that happened, and their fatal consequences, cannot be attributed to the want of efficacy in sailing, but were plainly owing to accidents, which, with due precaution, might easily have been foreseen and prevented.

In most of the cases related, the voyage was undertaken so late in the disease, and when the symptoms were so far advanced, that not only the success, but even the safety of it was doubtful.

Nor was the time allotted for sailing always sufficient, in a great degree of the distemper, to render the success complete in a perfect cure; which, as far as the nature and circumstances of the malady would allow, might have been accomplished by perseverance.

CHAP. IV.

Living at sea, a proper remedy in various cases, and how it operates.

AFTER so large a detail of facts, it is natural to enquire what there is in sailing, or living at sea, that makes it a fit remedy; what effect it has, and how these effects are produced. As this subject has been but little attended to by the moderns, though well known in ancient times, it seemed necessary that we should be so much the more particular and minute in our enquiries into it, in which it is hoped we shall be indulged. Should it be thought that the operation of the sea is made to depend on too many circumstances, it must be observ d that most of them are mentioned by authors; and every one may judge for himself to which of them the effects should be attributed.

The first effect of sailing is the sickness, which generally takes place

immediately; and, at the very beginning of a ſea voyage, cleanſes the firſt paſſages from thoſe bad humours, which, if retained, would vitiate the chyle, and prove a continual ſource of diſorder in the bowels, as well as in the blood. So far it properly correſponds with the uſual præmittenda in all regular courſes of medicine.

But the benefit of ſea-ſickneſs is not reſtricted barely to the cleanſing of the firſt paſſages. Vomiting, by deriving a greater ſupply of blood and ſpirits into the parts, warms and ſtrengthens them; and the long continued nauſea, giving a laſting contractility, reſtores the tone of the ſtomach, and its appendages, when, from natural weakneſs, or ſome other vice, they are unable to do their office, and ſo bring on a bad digeſtion, the ill effects of which are felt in all the after concoctions. On theſe accounts, therefore, it muſt be a ſure remedy in many diſeaſes that have their ſeat in the alimentary canal, or depend upon its diſtempered

ſtate.

ſtate. The invigorating power of ſailing, on the ſtomach and bowels, is evident from the coſtiveneſs produced by it, and the great appetite which it ſeldom fails of procuring; even when it has been entirely loſt, and could not be reſtored by any other method.

Vomiting, moreover, by the repeated ſucceſſions it gives, and the evacuation it promotes, makes a ſtrong revulſion, and, diſlodging the impacted matter of diſeaſes, becomes a powerful deobſtruent. From daily experience we know that fixed obſtinate pains, particular tumors, and topical inflammations, threatening a dangerous apoſtemation, are thereby entirely removed, or have their increaſe retarded. Rebellious ulcers it renders more tractable; and hemorrhages are wholly ſtopt, reſtrained, or prevented by it. Dropſies likewiſe, and a mania, ſometimes yield to it. Nothing, perhaps, cauſeth more violent concuſſion, or greater diſtenſion in vomiting, than ſea-ſickneſs does; and therefore the com-

commotion excited by ſailing, was ſaid to have the ſame effect as hellebore; and the vomiting, occaſioned by the rolling of the ſhip, to be a cure in many diſeaſes of the head, breaſt, and eyes, as well as all thoſe for which hellebore was uſually given *.

This ſickneſs, however, is not always a conſequence of being at ſea. Even when the commotion is great, many are entirely free from it, and yet as certainly cured as thoſe who are ſick. There is a circumſtance in ſailing, though not regarded perhaps, which ſeems in ſome meaſure to ſup-

* Commotio denique, quæ in navigatione excitatur, vim habet helleboro levi et albo perſimilem. Oribaſ. Medicin. collect. lib. 6. cap. 23.

Quin et vomitiones ipſæ, in ſtabili volutatione commotæ, plurimis morbis capitis, pectoris, oculorum medentur, omnibuſque propter quos elleborum bibitur. Plin. Hiſt. lib. 31. cap. 6.

Illa autem quæ fit procelloſo in mari jactatio robuſtiſſimum hominem, non aſſuetum, vertigine, vomitu, anxietate intolerabili, ipſo animi deliquio, afficit; hinc caſu aliquando morbos inveteratos ſic ſanari novimus. Van Swieten Comment. in Boerhaav. aphor. tom. 1. p. 34.

ply

ply the want of this ſickneſs. For ſeveral days, till the motion becomes familiar, every time the ſhip pitches, a ſtrong involuntary contraction of the muſcles of the abdomen is felt, as if the perſon were ſinking or falling, and endeavouring to recover or ſave himſelf; which, upon the riſe of the ſhip, immediately ceaſes, and the muſcles are a moment at reſt; till, by the fall of the ſhip, they are again put into action. Thus all the viſcera of the lower belly are, for a great while, under a frequent, conſtant, alternate compreſſion and relaxation. In this action too, which is ſometimes pretty uneaſy, eſpecially if there is a head ſea meeting the ſhip, the ſame mechanical impreſſion is made on all the parts within the thorax. By every contraction of the abdominal muſcles the diaphragm is ſtrongly puſhed upwards, which, when the contraction is over, inſtantly deſcends; ſo that the lungs themſelves are, equally with the other bowels, ſubjected to a quick ſuc-

ſucceſſion of alternate preſſure and dilatation. The effects of all this may be eaſily conceived. It muſt have no ſmall influence in promoting a free circulation through the ſeveral viſcera; and be a good means to reſolve obſtructions already formed, or prevent thoſe that are about to form. Glandular tumors, external, indolent, and not quite in an indurated ſtate, are often diſſipated by repeated friction, or gentle kneading, to which the action now deſcribed may be conſidered as not diſſimilar.

Sailing has been reckoned ſtill farther of uſe, as the air at ſea is poſſeſſed of real alterative virtues, on account of the many ſaline and other corpuſcles of different powers, united with it, and plentifully imbibed by the inhaling veſſels, eſpecially thoſe of the lungs. The marine vapour, according to Oribaſius, is not merely humid, but is likewiſe impregnated with dry and acrid parts, of an active penetrating nature. For this reaſon maritime places

places were judged proper, whenever there was occasion to warm, resolve, or deterge. Sea air, on account of its saltness, is highly aperient, says Cælius, cleanses the body from impurities, and, like an alterative, corrects the whole habit *.

There is in the air a certain principle necessary to life, though we have no determinate notion of it. This seems

* Quæ autem in navibus (fit gestatio) hoc magis habet, quod in purgato aere, et in quo non humidi vapores, sed sicci et acres sint, efficitur; et ob eam ipsam caussam est præstantior. Oribas. Medicin. collect. lib. 6. cap. 23.

Loca vero maritima ubi detergendum, aut aperiendum, aut calefaciendum, conveniunt. Id. lib. 9. cap. 11.

Etenim fluminales, vel portuosæ, atque stagni navigationes incongruæ judicantur, quoniam humectantes caput infrigidant exhalatione terrena: maritimæ vero latenter atque sensim corpus aperiunt, et, salsæ proprietatis causa, corpus adurunt; atque ejus habitum quadam mutatione reficiunt. Cælius Aurel. lib. 1. Morb. chron. cap. 1.

Est enim lacerantior, atque corporis apertionibus efficax, ob salsitatem maritimus aer. Id. lib. 3. Morb. chron. cap. 3.

to be maintained only by a free circulation; and therefore the unhealthiness of places, not duly perflated, is probably owing to the want of this principle; which the inhabitants of great cities and towns, and those who live in low and confined situations, are obliged, for the preservation of health, or the cure of diseases, to seek in the open country, and more ventilated situations. Perhaps too this vivifying principle abounds most at sea, as the air is there so much purer, milder, and more highly cherishing. Its excellence in these respects is experimentally known, even to the vulgar; nothing being more commonly spoken of than the freshness of the sea air; which carries along with it the idea of greater purity and wholesomeness. Aristotle observes that there is a more kindly ventilation at sea, or a more frequent blowing of temperate winds, to which he attributes its healthfulness; and it was reckoned
one

one great advantage of sailing that it is performed in a pure air*.

The exercise in sailing is one chief circumstance of its operation. Gestation at sea is quick, vehement, and incessant, in very various and opposite directions. In this rocking motion, therefore, there is a perpetual balancing, from a continual change of the center of gravity; by which means all the solids act, and the fluids are acted upon, with great variety and effect, and thus contribute to produce an uniform, well elaborated fluid, the blood. The lungs, by their unceasing motion, and thorough agitation of the blood, are the main instrument of sanguification; which, in many diseases, is very imperfect, especially when this organ is itself affected. Will not the constant various action, induced through the

* Cur qui in navibus degunt, quamvis inaqua, coloratiores tamen sunt, quam qui in paludibus? An loca commode aspirata, coloris præbere hilaritatem possint? Aristot. Probl. sect. 14. quæst. 12.

Oribas. ubi supra.

whole ſyſtem of the muſcles in ſailing, be a help to the impaired action of the lungs? And does it not, more than any other exerciſe, emulate, and ſupply the want of this ſanguifying power in them? The benefit uſually accruing to health from a ſea voyage, even when the diſeaſe is not entirely cured, ſeems to be a proof that the juices are more perfectly elaborated.

A farther addition to the exerciſe at ſea, beſides the greater action of the air in general, ariſes from its undulatory manner of acting; by means of which it exerts much more efficacy, than when acting only by a conſtant equal preſſure. It is owing to an unequal preſſure of the air, in the way of impulſe, that low-ſpirited and hypochondriacal people find themſelves more briſk and lively in windy, bluſtering weather, though rainy, and in thunder. The contrary happens to them in calm, mild, cloſe weather, though not rainy, as is uſual in ſpring or ſummer, when they are often

often worst. In such seasons and weather the air has but little action; the solids are more relaxed; and the humors, from these causes, are disposed to move slowly.

But living at sea must be considered as having a mighty influence on the mind, which, by consent, will powerfully affect the body. In sailing there is a strange mixture of passions; and these are sometimes in extremes. Seafaring people are frequently agitated between hope and fear; are sometimes merry, sometimes sad; exulting with joy when safe, and at rest; and in danger thrown into the utmost despair. Such various and sudden transitions of passions, are capable of removing the most inveterate diseases, and such as are not curable by any other method*.

There is one disease, to the cure of which sailing is, by its manner of opera-

* Verum gestatio per pelagus vehementissima est, et mutationes plurimas, et maximas facit. Nimirum cum anima mixtos affectus habeat, ex tristitia et spe, timore et periculo; modo gaudentibus et lætis, modo in agone existen-

operating, ſo much appropriated, and of ſo much importance, that a farther illuſtration thereof will not, perhaps, be unacceptable; and that is, a conſumption.

A conſumption is a local affection, and external, as it is expoſed to the air. Every one knows that exerciſe, with change of air and climate, may be of ſenſible benefit to the habit; but few have conſidered the ſpray, and vapour at ſea, as a ſuitable application to the lungs in particular. In ſpeaking of this ſubject I preſume it is granted me that, to attempt the healing of the part chiefly affected in a conſumption, by applying a remedy directly to the part itſelf, is a reaſonable and neceſſary intention. To cure the ulcer of the lungs is to cure the diſeaſe, which manifold experience muſt convince us can hardly be done

exiſtentibus navigantibus. Omnia hæc compoſita ſufficientem vim habent omnem veterem morbum exigendi, et e corpore excludendi. Ætius Medicin. contract. tetrab. prim. ſerm. 3. cap. 6.

by

by remedies that affect them remotely, and in a trifling degree, by means of the circumfluent blood only.

The necessity and success of fumigation in ulcerations of the lungs, is insisted on by authors; and many forms of remedies are proposed, in the way both of steam and fume, to be conveyed by proper instruments directly into the lungs. Drying antiseptic substances are likewise directed to be held in the mouth, that the air and spittle may be plentifully impregnated with their effluvia: nor, in that intention, is the method contemptible.

Instead of these artificial applications, though they were also in use, the ancients endeavoured to find a properly medicated air for the consumptive to breathe in. In this view those having ulcerated lungs were sent to Libya, where, by breathing the balsamic effluvia of the pines, with which that country abounded, they are said to have lived many years in safety free from their complaints. By Galen

they were ſent to Stabiæ, the ſituation of which, on the ſhore between Naples and Surrentum, ſeems to have been remarkably favourable. Sufficiently elevated, as well as defended from the eaſt and north winds, and declining to the ſouth, it was advantageouſly expoſed to the mild healthful influences of the ſea; and Veſuvius continually throwing out ſmoke and aſhes, filled the air all round, ſometimes to a great diſtance, with ſulphureous drying exhalations. The internal heat of the mountain, which extended to Stabiæ, would, no doubt, likewiſe cauſe a tranſpiration of ſuch effluvia.

With us the great reſource in conſumptions hath been to ſeek a warmer climate and a purer air. The advantage of the air in thoſe ſouthern places to which the ſick are generally ſent, conſiſts in its mildneſs, the conſtancy of the weather, and the regularity of the ſeaſons; which, compared with the air of places farther north,

north, that are cold and moist, and subject to frequent changes of weather, is, without doubt, preferable to them, and does less harm. May it not be a question, however, whether or no the prevailing opinion be just, that the finest air is always the best? It does not appear from experience to be so. The sick are often observed to grow worse in a pure, serene, dry air, and to live easiest in weather and seasons seemingly more unfavourable; in air particularly that, as Hoffman expresses it, is temperately humid *.

If,

* As the lungs are a constantly moving organ, the air-vessels, that there might be no resistance to their motion, are every where surrounded by a spungy cellular substance, and always kept soft and yielding, as well as properly defended by the mucus with which they are lined. From their peculiar use and texture, therefore, moist air appears to be the most friendly to the lungs, and necessary to preserve them from being inflamed, and so becoming less moveable, as they are apt to do in fevers, and in hot dry air. But moist air has a farther effect, being better adapted than dry air to cool, refresh and ventilate the blood in the lungs. The comfort and benefit of a shower is sensibly felt in great heats,

If, as hath been alleged, the air at ſea is endued with greater gravity and elaſticity than that at land, it will anſwer, with ſo much the more advantage, all the mechanical purpoſes of air in reſpiration; that is, it will the more freely dilate the weak, flaccid, or ſtiff, callous lungs; of conſequence procure an eaſier circulation through them; and make a due compreſſion on the tender blood veſſels ſo liable to rupture,

heats, as it gives more ſpirits, and greater freedom of reſpiration. In ardent fevers, branches of trees, and ſucculent plants, ſet in pots of water, are placed in the chambers, and about the beds of the ſick, with no ſmall advantage. In hot climates, the cuſtom is, to ſit down, when almoſt ſuffocated, under the ſhade of a wet cloth, from which the moſt agreeable relief is obtained; the effect plainly of moiſture. This is farther confirmed by another obſervation, that the ſea-breeze, though cool, always brings on a breathing ſweat, or free perſpiration, and thereby makes the body eaſy; which the dry ſultry land-wind never does, but diſpoſes the blood to be putrid and aduſt. The quantity of moiſture applied to the lungs, in inſpiration at ſea, muſt be very great, as the vapour is much greater there than at land; and the ſurface of the air-veſſels is computed to be equal, at leaſt, to that of all the reſt of the body externally.

rupture, especially in a hot, unelastic air. It is hardly to be conceived what relief and refreshment some have found on first breathing the sea air. The asthmatic, and such as are faint, or dying, should have the windows and doors thrown open to let in a full stream of springy air, lest the lungs should suddenly collapse, and move no more. On the tops of high mountains, where the air is very light, one breathes with difficulty, has a suffusion of the eyes, vomits, and a spitting of blood ensues. A sudden sultry heat produced one night in several persons hemorrhages of the lungs. There is a parallel instance of this kind in history ninth of the present treatise. Hence a reason may be deduced why the consumptive often enjoy greater ease, and live with more safety, in the thick air of large smoky towns, than in a finer air; because being filled with grosser effluvia, it is not so capable of rarefaction, and of doing hurt by

by its lightneſs, to thoſe in whom there is a delicate texture of the lungs, and whoſe blood may be diſpoſed to efferveſce. Celſus makes it a neceſſary requiſite that an air be choſen more denſe than what the ſick have been uſed to live in, and therefore were they ſent to Egypt; where, from the frequent rains in its maritime places, the air, as Proſper Alpinus informs us, is very groſs *. Formerly indeed they ſeem to have choſen ſituations on the ſea coaſt, and a heavier air; which does not at all agree with our modern notions and practice. Some have been cured of a conſumption by living in Holland. The diſeaſe is rare in that country.

But my principal view, as it is of principal concern, was to ſhew that ſea air alone can boaſt the advantage

* Opus eſt cæli mutatione, ſic ut denſius, quam id eſt ex quo diſcedit æger, petatur. Ideoque aptiſſime Alexandriam ex Italia itur. Celſ. lib. 3. cap. 22. De tabe.

of

of being, at all times, replete with particles fitly suited, in a strict medical sense, to the different morbid states of the lungs in a consumption. Sea air is a true pectoral, properly medicated, and is applied directly to the lungs themselves in inspiration. Nor will it be found inferior to balsams of the highest name; even supposing them to possess the utmost virtues that have been ascribed to them. Amongst the exorbitant number of internals called pectoral, how few can be said to merit that appellation? As such, their effects are very uncertain. They reach the part only by the long round of circulation, and affect the whole body indifferently; so as, in certain circumstances, to become equally good diuretics, and splanchnics; or more generally sweeteners and antiscorbutics. But the kindly warmth, basamic nature, and saline humidity of sea air, render it, in every intention, a fit and necessary, and often an effectual application to the lungs externally.

The

The conjecture now offered, that sea air is possessed of all the requisites to constitute a true pectoral, may not, perhaps, be very readily admitted; nor shall I confidently affirm it. However, imagining that being frequently carried by water, would cool and refresh the weak parched lungs, cheer the spirits, and notably repress the fever; being likewise persuaded that there is something more in the vapour besides mere water, which gives it a resemblance to those medicated steams and fumes that are directed to be drawn into the lungs, and trusting but little to exercise at land for a cure, I made some cautious trials of the effects of living at sea: nor was I disappointed. The benefit was such as I had never observed from ordinary air and exercise; so great indeed as to convince me that it was attended with many advantages; and that the sea is a powerful means of cure, or of relief, in a malady which hath, almost al-

ways,

ways, bid defiance to every other method, even the most rational, and best concerted. I was farther encouraged in this opinion, by finding that the same notions were held by the ancients; and that failing is generally, and for the same reasons, recommended by them in a phthisis.

It has been remarked concerning the external application of sea water, which is still used by the vulgar in the same intentions, that it is good to extenuate ulcers already cleansed; for ulcers of fishermen; for callous or fistulous ulcers, and such as are badly cicatrized; spreading ulcers likewise it stops and mitigates*. In some such condition are the lungs commonly found in a consumption; and such effects, in some degree, will the spray and vapour of the sea have upon them. This vapour, which acts constantly on the lungs as a bath or fomentation, was, by physicians of earlier times,

* Hippocrat. lib. de liquidorum usu.

said

ſaid to be of a warm, reſolvent, detergent nature. Aretæus particularly conſidered it as a healing application, ſaying expreſsly that, in a conſumption, the ſaltneſs of the ſea communicates ſomething that dries up the ulcers; and experience ſeems to confirm it*.

* Cum ulceribus enim quiddam ſiccum marina ſalſugo communicat. Aretæus de curatione morb. diuturn. lib. 1. cap. 8. de phthiſi.

CHAP.

CHAP. V.

Sailing accommodated to the distempers of Great-Britain.

THE natural constitution of the diseases of any place or country is conformable to the general constitution and more remarkable changes of the air; which again depend upon the soil, climate, and situation. Great-Britain being an island which lies pretty far north, and scarce any part of it above sixty miles from the sea, the general constitution of its air is cold and moist, the weather very changeable, often cloudy or hazy, foggy, turbulent, and in extremes. Laxity of the solids, a languid and irregular circulation of the fluids, and a retention of humors, with more or less corruption of them, are the certain and universal consequences. The diseases arising from such a condition of the solids, and disposition of the fluids, are, tenderness, or a valetudinarian habit;

habit; ſcurvy, vapours in all degrees thereof, from lowneſs of ſpirits, to the higheſt nervous complaints; glandular obſtructions; rheums; plethoras of different kinds; conſumptions; and other affections of the lungs; and fevers of the ſlow, depreſſed, hectic, anomalous, intermittent kind. Of theſe I ſhall treat ſo far as coincides with the preſent deſign.

Tenderneſs.

This conſtitution of body is an habitual want of health, from cauſes not well known, or not well conſidered. Thinneſs or want of fleſh often attends a valetudinary ſtate. Many, eſpecially younger ſubjects, though thin, feel, or complain of, no actual diſorder. Others are continually ailing, ſubject to colds, toothachs, ſudden feveriſh fits, and fits of looſeneſs; and all their illneſſes are very ſmart. Some again are pale and languid, and have ſigns of a watery colluvies; their ſkin

ſkin is white and ſmooth, their hair ſoft, fair, thin, and lank; and their teeth bad. The blood is ſometimes florid and reſolved; at other times it is conſiderably ſizy.

If tenderneſs or waſting, without any ſenſible cauſe, in the beginning of life, reſiſt the ordinary remedies, and threaten ſome great and formal diſtemper, it muſt be attended to in time; and I had always that in view, in the trials I purpoſed to make of living at ſea. The ſingular change of air, of climate often, and the no leſs ſingular exerciſe, conſequent on ſailing at ſea, are able to produce great changes, in the humors, to reſolve them when impacted, and mightily to ſtrengthen the whole frame. It is a common obſervation that raw, puny, ſlender boys, going to ſea, in two or three years, grow big, luſty, and ſtrong.

Scurvy.

There is a ſpecies of ſcurvy ſo univerſal that there are few, perhaps,

 who

who have not, one time or other, ſymptoms or appearances of it; and numbers ſuffer from it a great part, or the whole, of their lives. Diſtinguiſhed from the true ſcurvy, which conſiſts in a diſſolved, ſome ſay in a viſcid, ſtate of the blood, it appears to be a lymphatic diſeaſe; a foulneſs, acrimony, or other vice of the thinner fluids; manifeſting itſelf by ſome internal diſorder of the habit; or externally by eruptions, ſometimes by ulcers and various diſcolorations of the ſkin. Among the many diſtempers ſaid to ariſe from this impurity of the juices, a head-ach is mentioned, and a cholic, both of an obſtinate chronical nature; and frequently terminating in a jaundice or dropſy. In all theſe, and in a leproſy, (the higheſt degree of ſcorbutic acrimony, a cancer excepted,) ſailing and living at ſea are directed as a cure *.

The

* Peregre proficiſcatur ægrotus in regiones calidiores ex frigidioribus, et in ſicciores ex humidioribus; confert

The use of it seems to be more particularly insisted on in a dropsy. It is certain, says Dr. Towne, that in a beginning dropsy nothing conduces more towards recovery than exercise and change of air; no kind of exercise more than sailing, and no air more than sea air. Let me therefore exhort all such whose circumstances will admit of it, to leave the island, on the first approach of this distemper, and remove for some time to England †.

fert et navigatio, et in mari vitæ traductio. Aretæus *de curat. cephaleæ.*

Motus et omnis exercitatio conferunt, sive pedibus, sive per equum, sive etiam navigio corpus movere velint. Allex. Trallian. lib. 10. *de colico affectu ex frigido humore.*

Tum adhibenda longa navigatio. Cællius Aurel.

Erit præterea, perseverante passione, etiam longa navigatione curanda. Cælius Aurel. cap. *de aurigine.*

Vita in aquis dlci ducenda est, et mare et navigatio conferunt. Aretæus *de curation e elephantiasis.*

* *Account of the diseases of the West-Indies.* Chap. of the dropsy. And to the same purpose Cælius Aurel. cap. *de hydrope.*

One given over in a dropſy ſailed ſome miles in a boat, which made him vomit. After the vomiting he uſed exerciſe, and recovered. In another, on a ſhort voyage, the tumor almoſt miraculouſly diſappeared, and never returned*.

If we conſider the exerciſe, the revulſion in vomiting, and the evacuations it ſometimes promotes, ſailing ſeems to be the moſt proper, eaſy, and effectual means to prevent the water from being collected again after tapping †.

* Sic quidam hydropicus inflatus ventre, manibus, pedibuſque, et facie, a medicis deſtitutus, et tanquam deſperatus, adiit littus marinum, et navicula per aliquot milliaria aſcendit in altum maris: et provocato vomitu, poſt vomitum exercitio utens, ſanitati reſtitutus eſt. Foreſti *ſchol.* ad obſ. 32. lib. 19.

Ex obſervationibus noſtris hæ non videntur prætereundæ. Johanni Blanche, negotiatori Pariſienſi in Angliam profecto, hyeme, tumor cum miraculo quodam ſubſedit, evanuitque morbus, nec rediit. An quod integro, aut non ita læſo viſcere, aqua, partim calore nativo excitato, partim aere marino, reſoluta fuerit? Hollerius ſcholiograph. ad cap. 39. de morb. intern.

† Perfecta humoris detractione, ægrotantes præterea navicula exerceri hortamur. Cælius Aurel. cap. *de hydrope*.

Though

Though this be not the proper place for it, I cannot omit mentioning here that sailing was held of use in disorders of the kidneys *.

Vapours.

If we suppose a want or effeteness of blood, and, in consequence, a languid circulation, in the remote vessels especially, exciting undue oscillations, or a spasmodic disposition of the solids, we shall be able to form some idea of the nature, causes, and tendencies of a very various and perplexing distemper.

The passio stomachica of the ancients has the nearest resemblance, in many things, to our great modern national distemper the vapours; and in that case sailing, or at least sea air, was a remedy; as well as in several disorders that attend lowness of spirits, or have an affinity to it: these are,

* Dieta vero, inunctio, navigatio, et vita in mari acta, omnia renum affectionibus remedia sunt. Aretæus *de curat. calculorum et ulcerum in renibus.*

 pains

pains in the ſtomach, coldneſs and inflation of it, want of digeſtion, loſs of appetite, or a depraved appetite, and redundancy of bile and phlegm. It was recommended likewiſe in caſes where hellebore was proper; and in thoſe higher nervous diſorders which are often the effect of low ſpirits, or a ſcorbutic habit; ſuch as epilepſy, apoplexy, palſy, and maniacal affections *.

In

* To avoid references, as much as poſſible, I ſhall give only ſuch quotations as are the moſt material.

Si vero pituita ſtomachus impletur utilis navigatio. Moleſtius eſt ſi ſtomachus bile vitioſus eſt. Neceſſaria geſtatio, navigatio, et, ſi fieri poteſt, ex nauſea vomitus. Celſ. lib. iv. cap. 5.

In parvis vero navibus, et magnis ferri confert lepræ, et hydropi, et apoplexiæ, et frigiditati ſtomachi, et ejus inflationi, quoniam, quum coram littoribus maris fuerit, commovebitur ei vomitus, deinde quieſcat, et conferet ſtomacho; ſed navibus ferri in mare altum eſt fortius in removendo ægritudines quas nominavimus: propterea quod ſecundum animam lætitia et triſtitia diverſificantur; et ſecundum membra nutrientia eorum vero exercitium corporis exercitium eſt ſequens. Avicenna, lib. i. fen. 1. doct. 2.

Valentiora,

In certain circumſtances of the vapouriſh diſtemper, and ſome diſeaſes that have a connexion with it, a ſtrong and laſting revulſion, or revolution of the humors and ſpirits, becomes neceſſary; for the cauſe, even when it affects the firſt paſſages, as it often does remarkably, ſeems beyond the reach of common emetics. By a frequent repetition of theſe the ſick are tired into an abhorrence of them; and the tone of the ſtomach is ſo much im-

Valentiora (geſtationum genera in alto mari navi) vero his conveniunt qui gravium morborum initia ſic ſentiunt ut adhuc febre vacent, (quod et in tabe, et in ſtomachi vitiis, et cum aqua cutim ſubiit, et interdum in morbo regio fit,) aut alii quidam morbi, qualis comitialis, qualis inſania eſt, ſine febre, quamvis diu manent. Celſ. lib. 2. cap. 15.——Quin et terra marique peregrinari multum juvat. Mead, *monita et præcepta medica*, cap. *de inſania.*

Novi epilepticos, qui in Indiam Orientalem tranſmigraverant immunes fuiſſe ab hoc morbo poſtea, quam diu ibi vixerunt: in patriam reduces, et ſubito abligurientes illa (ut ſolet ſæpe hoc hominum genus) quæ magno labore nec minore periculo, ſibi comparaverant, recidivam paſſi fuerunt quidam, alii manſerunt ab hoc morbo liberi: Van Swieten Comment. tom. iii. p. 436.

 paired,

paired, that the diſorder is confirmed by the very means intended to remove it. The ſea-ſickneſs can be ſafely ſuſtained for hours, days, weeks, nay months; a longer time by far than we dare to attempt to promote vomiting, or but a nauſea, by any medicine thrown into the ſtomach, and affecting it immediately. This muſt have a mighty effect in all thoſe diſeaſes whoſe cauſes are very remotely ſeated.

Under this article I muſt take notice of a particular diſeaſe, for which, indeed, I do not find ſailing mentioned as a remedy. If the inteſtines have not entirely loſt their tone, might not ſailing be uſefully employed in old obſtinate fluxes of the belly, that have eluded the power of all other remedies? Sailing cauſes great coſtiveneſs. Capt. F. when in the Eaſt-Indies, laboured nine months under a ſevere flux, and on that account was adviſed to return to Britain. In a few days after he put to ſea, the diſeaſe went entirely

tirely off. Capt. S. too, for about a year before he left Bengal, was ill of a severe flux, attended with violent pains of the ſtomach and bowels, by which he was greatly emaciated. His phyſicians told him that he could not live a month longer in that country, which determined him to leave it. He recovered upon ſailing, and imputes his cure wholly to the ſea; having given over all medicines for ſome time before he embarked, as they rather did him hurt than good.

Glandular obſtruction.

The extent of glandular obſtruction may be conceived from the infinite numbers of glands, of various orders, diſperſed every where through the body. It is moſt conſpicuous in the evil, a diſeaſe more frequent than is commonly imagined. A ſcrophulous diſpoſition often prevails, when there is no viſible tumor; but, affecting ſome remote order of glands, or inward part, is the cauſe of many diſorders

not

not readily underſtood, or ſuſpected to proceed from it. At laſt, perhaps, a glandular ſwelling outwardly ſhews the nature of the malady. When it affects the glands internally it is ſeated chiefly in the pancreas, meſentery, and lungs; and frequently terminates in a hectic fever, and a pulmonary conſumption.

Tenderneſs, ſcurvy, vapours, and the evil, ſeem to have the ſame general cauſes; and therefore it is, that they ſo commonly afflict the ſame perſons, and change ſo often the one into the other. Thus tenderneſs hath been cured by a ſcorbutic eruption. A herpes, or other foulneſs of the ſkin, indiſcreetly repelled, may bring on tubercles, glandular ſwellings, topical inflammations, extreme languor, or an oppreſſive low-ſpirited illneſs; which again hath been carried off by an eruption.

Rheums.

This is another claſs of diſeaſes to which ſailing, and ſea air, have been appro-

appropriated; though in most cases of rheums they may, perhaps, be thought unnecessary, or inexpedient, as other methods often succeed. Yet when they have all failed, going to sea hath, in many instances, proved a cure*. Oribasius and Ætius observe that maritime situations are proper for those who are troubled with any kind of rheum, especially of the cold kind; sea air being warmer than that of inland places. They are said to be good likewise, in pains of the nerves or joints; and when the nerves are affected by sympathy. In nervous pains, or a rheumatism, Celsus advises vehement gestation, or sailing; which, in other pains, he says, is hurtful †.

Under

* See hist. xii. chap. 3.

† Loca vero maritima hydropicis, et quibus quævis defluxio molesta est, accommodata sunt. Sed prosunt etiam omnibus iis qui nervorum et articulorum doloribus torquentur. Mediterranea sunt maritimis frigidiora. Oribas. *collect. med.* lib. ix. cap. 11.——Marinus vero (aer) fluidis affectionibus, et præsertim frigidioribus, utilis

Under the head of rheums may be comprehended all thoſe diſorders called colds, more particularly when they affect the lungs; a circumſtance which, on many occaſions, aggravates the diſeaſe, and increaſes the danger: ſo that a ſimple cough neglected, and left to take deeper root, frequently lays the foundation of a mortal conſumption. In all coughs, according to the laſt cited author, a long voyage, and living near the ſea, are uſeful *.

Aſthma.

In froſty weather, or an eaſterly wind, ſome are grievouſly aſthmatic, and often ſmartly feveriſh, from a conſtriction of the air-veſſels, and the conſequent inflammation. In moiſt weather

utilis eſt, et nervis per conſenſum affectis. *Ætius tetrab.* i. *ſerm.* iii. cap. 162.

Atque in ipſo potiſſimum dolore utendum vehementi geſtatione eſt, quod in aliis doloribus peſſimum eſt. Celſ. lib. iii. cap. 27.

* Utilis etiam in omni tuſſi eſt peregrinatio, navigatio longa, loca maritima. Celſ. lib. iv. cap. 4. ſect. 4.

weather the lungs are filled with a viscid phlegm, which hinders the free ingress and egress of the air, causing great difficulty of breathing, and labour in coughing. Some cannot breathe with ease, but in a free country air, and elevated situations. Others live easiest in the gross air of cities, and thick weather. An asthma frequently arises by sympathy from the stomach, or some other bowel affected.

It is chiefly owing to a different structure of the vessels of the lungs that different asthmatics require such opposite, and sometimes seemingly improper, airs to live in: for they may be of too rigid and too strait, of too lax or too delicate a texture, and endued with too much sensibility. So that the real vice of the lungs is not always to be discovered upon dissection. In the worst cases they often appear to be in all respects sound.

As the causes of an asthma most frequently depend on the constitution of the air, and the particular conformation

of

of the parts, we thence understand why those afflicted with it find no lasting benefit from any remedy; and why so few remedies afford any benefit at all. The most certain relief, therefore, is to be obtained only from an air rightly constituted as to its qualities; and to this the asthmatic must at last have recourse. Sea air hath seldom been tried on purpose. In considering how it is accommodated to particular cases, it must be remembered that, besides its greater action in dilating the lungs, it is of a kindly, resolvent, detergent nature; and also that the sea-sickness may sometimes be of great use, especially in the case of tubercles.

In an asthma Cælius advises much living at sea, or in places near the sea *.

A person afflicted with an asthma, tending to a consumption, found so much relief from living on the sea

* Utilis denique maritima, et plurima mare tenus conversatio. Cælius Aurel. cap. *de asthmate.*

coast,

coast, that he was almost well. But on a change of situation, the disease returned violently, and continued, till he again breathed the sea air *.

Consumption.

A consumption is to be distinguished as proceeding either from tubercles, and other hardnesses of the lungs, attended with ulceration in consequence thereof; or from a catarrh affecting the breast with erosion, or else from the spitting of saltish, sweetish, and even sometimes insipid phlegm; whereby the substance of the lungs, and even of the whole body, is slowly consumed, without ulceration; which,

* Æger, qui decumbit ad forum Boarium, asthmate ad phthisin vergente laborat; irritis plurimis remediis concessit Neptunum, et novum portum Antiatem; quando ibi degit, et marinum respirat aerem, morbo mitius cruciatur, ac pene paulo post sanus evadit. At si relicto aere marino ad vicinos se transferat campos, statim, et sine mora, asthmate, aliisque symptomatis, misere corripitur, et tamdiu molestatur donec marinum aerem denuo invisat. Baglivi *de fibra motrice et morbosa*, cap. *de mutando aere in longis et difficilibus morbis.*

if at all, does not come on till the laſt. This is called a pituitous conſumption. In whatever form it takes place, it has hitherto been, for the moſt part, ſooner or later, mortal. The preſent deſign extends only to the firſt ſpecies.

We often, indeed, meet with relations of a conſumption cured, and of remedies that are ſaid to have cured it; which, by their ſucceeding ſometimes, if they really contributed any way to a cure, or by being confidently recommended, are apt to impoſe a belief of their efficacy in general; ſo that the ſick are too readily perſuaded to place a confidence in them. It may be of uſe to undeceive ſuch; eſpecially as a fond conceit of the virtues of certain popular remedies frequently miſleads patients into a neglect or diſtruſt of means that are certainly more rational and more effectual.

Here ſome plain practical obſervations fall naturally in our way; which, it is hoped, will, in ſeveral particulars, farther illuſtrate the nature of the diſtemper;

temper; point out the difficulties, as well as the dangers, that sometimes occur in treating it; and show, in what circumstances, these two great affections, obstruction and ulceration of the lungs, are most frequently and successfully remedied, and by what means.

The former is happily, and not unfrequently, remedied when it comes on suddenly, with acute symptoms, fever, sickness, vehement cough, and wasting, whereby early warning is given of the danger; so that, by timely assistance, the fever may be subdued, and the fluxion prevented. This I have met with in an epidemical way; when several persons, at the same time under these appearances, were just running into a consumption. Less alarming symptoms at first might have betrayed the patients into a confirmed phthisis. In some, indeed, they ended in purulence; but as the constitution was good before, and the habit was not impaired by a long continuance of the disease, they recovered.

In ſuch caſes the reaſons and uſe of bleeding, bliſtering, ſometimes vomiting, mild diaphoretics, nitre, bathing the extremities, and gentle purging, are obvious.

Ulceration of the lungs is alſo frequently cured when brought on by abſceſſes from accidental cauſes; ſuch as fever, external injuries, or the ſuppuration of a ſingular encyſted tumor. I have ſeen many inſtances of cures in ſuch caſes. Few indeed die of them, provided they are not complicated with a bad habit, a phthiſical diſpoſition, or a wrong conformation of parts. Nor is the cure owing to a multiplicity of pompous remedies: nature, duly ſupported and regulated, will of herſelf do a great deal. A moderate uſe of the natural balſams, ſuch as agree beſt with the patient, is generally good; and, if nothing forbid, the bark may be given, eſpecially toward the end, to prevent colliquation, ſtrengthen the whole frame now much impaired, and confirm the tone

tone of the part that was affected. But a vegetable diet, with much milk, has no ſmall ſhare in the cure: nay, in ſome extraordinary caſes, I have attributed the ſucceſs entirely to that.

A lady, habitually ſubject to ſuch diſorders, complained of languor, loſs of appetite, and pain in her ſtomach, while her pulſe ſcarcely diſcovered any ſign of fever. She was treated accordingly. Without any preceding cough, ſtitch, pain, weight, or foreneſs of the breaſt, or difficulty of breathing, that could give the leaſt ſuſpicion of it, an abſceſs at laſt ſhewed itſelf in the lungs. She brought up great quantities of matter, green and intolerably fœtid; was ſo emaciated, that ſhe had truly the appearance of a ſkeleton, covered with a brown parched ſkin; and for many weeks ſeemed to be at the point of death. Her recovery was the more remarkable that, diet excepted, the remedies ſhe uſed were trifling; for, through

mere weakneſs, ſhe was, for a great while, not a ſubject for medicine.

A lady, after a feveriſh indiſpoſition of many months, attended with ſevere pains in the ſtomach, great fluttering of the ſpirits, and a highly irritable ſtate of the nerves, but without cough or difficulty of breathing, had an abſceſs of the lungs. For ſeveral weeks, together with matter, ſhe coughed up pure bile, in great quantities; it was thick, unſufferably bitter, and dyed her tongue, mouth, and lips brown. Here the ulcer of the lungs communicated with the liver. When the bilious diſcharge ceaſed, ſhe continued, for a long time, to ſpit matter, with portions of a cyſt or bag. In this cure little regard was had to the remedies called pectoral, which, as often as tried, were found either uſeleſs, or hurtful. Such things as might repreſs the fever, and reſtrain the violence of the ſymptoms, were chiefly required, and ſerviceable; her food, for the moſt part, was butter-milk.

Pus in the lungs, unaccompanied with ſuch ſigns as plainly intimate this part to be affected, is hardly to be diſcovered. Many die of this unknown cauſe, as diſſections ſhew. In the two hiſtories above related, the complaints were chiefly nervous, affecting moſtly the ſtomach; and ſometimes the latent evil is only to be detected by ſuch ſymptoms. For obſtruction or corruption of any of the organs or bowels, more eſpecially of the lungs, frequently exhibits appearances of this kind. A conſumption is often uſhered in by a lowneſs of ſpirits. I have ſeen a numbneſs, and reſolution of all the extremities, in the firſt ſtage of it. In a hiſtory to be afterwards given, we ſhall find it attended with a tormenting hiccup. I once found it preceded by a ſimple mania, and once by a canine appetite, ſo craving and inſatiable that the patient became delirious.

One thing to be attended to is, whether or no the abſceſs be contained in

a cyſtis or bag. When an extravaſa-tion is made into the cellular ſubſtance of the lungs, the matter of it, ſpreading and corrupting, becomes acrid, inflames the parts, and brings on a ſpeedy ſuppuration. But, if the humour be confined in a cyſt, it affects the lungs only by its weight or preſſure; and, as it produces no irritation, being ſhut up in an inſenſible membrane, it may lie long concealed, before it cauſe any great labour, or inflammation of the parts; and in ſome we ſee it gives them no ſenſible diſturbance at all. A cure cannot be obtained till the cyſt is entirely diſſolved, or in a courſe of time coughed up piecemeal. The ſmalleſt portion of it remaining is an extraneous body, which, like the pea put into an iſſue, or a tent indiſcreetly uſed, will occaſion more or leſs irritation and fluxion, and hinder the re-union of the veſſels. Balſams, or other ſtimulating detergents, are here of little uſe, if they be not hurtful; for they cannot affect the

part to which the cyst adheres; and, when too freely used, may, by their acrimony, cause heat, fever, and inflammation, as well as provoke coughing. Perseverance in a proper diet keeps the parts cool and supple; exercise and repeated vomits will help to separate the cyst, part of which is sometimes brought up in vomiting; while, by other methods, as they are indicated, the general state of the health is secured, till all impediments are removed, and the part again becomes sound.

I shall here add a few more histories which, being attended with peculiar circumstances, may give occasion to farther remarks. During the intense frost in 1739-40, a gentleman, after a pleurisy with inflammation of the lungs, had an imposthume in them. For many days he threw up a vast deal of matter, and became highly œdematous. Yet, notwithstanding the long severity of the season, he recovered next summer. To facilitate the discharge of

so much matter, I made him lie daily, at stated times, when it was most accumulated, in a horizontal position, with his head lowest on the side that most favoured the issue of the matter. By this means much of it was evacuated in a short time; the lungs were relieved from the great weight upon them; and a respite was procured from incessant vehement coughing. Blisters on the ancles, and gentle purgatives, prevented a surcharge of dropsical humours on the lungs.

Matter remaining long in the lungs oppresses and distends them, acquires bad qualities, and farther corrupts the parts. A certain degree of coughing is therefore necessary to discharge it; but an incessant cough teazes, heats, and exhausts the patient to such a degree of weakness, that he is not able to cough; and on the other hand, opiates, though for a time they suspend the cough, yet, by retaining the matter, they increase the oppression, and so do equal mischief. Between these

two

two the physician is much embarrassed. Anodynes, such as diacodium, given frequently and freely, restrain the fever, and moderate the cough, without entirely suppressing it, as full doses of opium are apt to do. This expedient therefore I have, on several occasions, employed with advantage: but a little caution is necessary; because the matter sometimes flows so fast, that the patient complains of being almost choaked with it.

A person of a thin delicate habit contracted a cough, which continued long, and increased daily, with great wasting. Through mere weakness he was confined to his bed, became quite emaciated, and, with a constant fever, had profuse sweats, and a highly hectic look. From these appearances, and his having little or no expectoration, I suspected an abscess. A vomit was given to hasten its breaking. This, no doubt, may be dangerous, but his safety depended on a speedy rupture, which happened in a day or two; af-

ter which, by an eaſy method, he recovered.

Miſs L. ten years of age, and very delicate, after a continual fever, had a ſuppuration of the lungs, with large protruſion of the ribs. The violence of the pain made her always lean to one ſide, which cauſed a conſiderable diſtortion of the ſpine, and threatened the entire loſs of her ſhape. By proper methods this was corrected. From the diſeaſe of her lungs ſhe likewiſe recovered; but without the uſe of medicine, for ſhe would take none.

A gentleman of ſixty, ſubject to the gout, had no fit for ſome years. Two ſummers ſucceſſively he fell into languor and palpitation, with a feeble intermitting pulſe, loſs of appetite, and waſting of his fleſh. Next ſeaſon a ſlow fever ſeized him, which, after continuing a month or more, could not be carried off by the uſual means. For ſeveral days he had now ſtated fits of trembling, ſucceeded by heat and ſweating, which altogether laſted a-

bout

bout four hours. The bark was urged, but for good reasons declined, and the appearance that seemed to indicate its use ceasing of itself, the disease returned to its former type, and went on uniformly four months; the patient's strength daily, though slowly, declining. All this time there was no sensible disorder of the breast. When he appeared to be sinking fast, his legs being now swelled and his appetite almost gone, a decoction of the bark was given, purely with a view to support him; and he used it for some days. A fit of coughing then came upon him, and he brought up ash-coloured matter in good quantity, which continued to come away freely for some time, and then gradually dried up. He recovered, and enjoyed great health for a long time.

The lungs being a soft, passive, indolent part, are often found in a highly morbid state without giving any, or but very equivocal, signs of their being affected. Hence an obscurity of

symptoms,

ſymptoms, and uncertainty in the diagnoſtic. However, a conſtant, ſlow, lingering fever, not yielding to remedies, nor altering its ſhape, is frequently obſerved to end in ſuppuration ſomewhere; and as the lungs are, equally with other parts, liable to obſtruction and to injury from the impetus of the blood in fevers, it is right to have always a regard to them, eſpecially if no other bowel appears to be affected. It might be mentioned likewiſe, that, in certain circumſtances, ſhiverings are a pretty ſure ſign that pus is forming, though pus is often met with where no ſhivering hath been perceived. In the preſent caſe, the formation of it may be dated from thoſe tremblings which were felt in the beginning. The matter, at firſt crude and thin, would be eaſily drawn into the circulation, and cauſe the appearances of an intermittent; but acquiring greater conſiſtence, it could not be ſo eaſily abſorbed; and conſequently the appearances of an inter-

mittent

mittent would ceaſe. Theſe, and other circumſtances which occur in the preceding hiſtories and remarks, will, in ſome meaſure, ſerve to explain ſymptoms, and better aſcertain the diagnoſtic. And when, from their concurrence, it is ſuſpected that an abſceſs is formed, and that the matter therein is fairly accumulated, but nature, in a reduced ſtate, unable ſpeedily to break it, the bark, ſeaſonably adminiſtered, may be a good means to haſten its rupture.

A young gentleman, at ſchool, bathed in the river, when warm at play. A fever came on, with a ſtitch in one ſide, and ſevere rheumatic pains in all his limbs. About the eleventh day the diſeaſe ſeemed to terminate; and he was for ſome time pretty eaſy, though not without fever. He grew more feveriſh than before; had great oppreſſion in breathing, and could not lie but on that ſide in which he had felt the ſtitch. A broad, thick, doughy ſwelling came upon the part, which appearing

appearing in one place to point, it was determined to open it. Mean while the abſceſs burſt into the lungs. The fever, however, continued and increaſed; for which two or three ſmall bleedings were directed. He likewiſe uſed the mercurial pill, and recovered.

Many more inſtances might be given of the ſame kind, with the like event; as well as of patients who, at times, have ſpit up impoſthumes for years, ſo that a mortal conſumption ſeemed unavoidable, and yet have done well. But the hiſtories now related are ſufficient to ſhew the nature, cauſes, different appearances, and moſt uſual termination of this ſpecies of ulcer; which, to place it in a due oppoſition to another ſpecies, it was neceſſary to deſcribe in a variety of caſes and circumſtances.

It is in ſuch caſes only, I preſume, that conſumptions are ſo often ſaid to be cured; but here a great diſtinction muſt be made. This is not the conſumption that prevails moſt, that is moſt

most fatal; many illnesses have much the appearance of a consumption, that are very different from it. Though in such apostemations of the lungs the issue is for the most part fortunate, and the usual remedies have the desired effect, we must not flatter ourselves with equal success, and by the same remedies, when a consumption depends upon a number of glandular swellings arising from constitutional or other causes, in a slow way, or by congestion, as it is termed, and afterwards ulcerating. The symptoms, in their rise and progress, are often so slow and so unperceived, or so little regarded, that the danger is not always apprehended in time; and therefore relief is too seldom sought, or the necessity of it imagined, till the disease has deeply fixed itself in the badness of the habit, or firmness of the obstruction; so that the favourable opportunity of curing it is lost.

A consumption is justly reckoned a malady of the scrophulous kind; and as

as that dispofition is very prevalent, though often unsufpected, the prevalence of a consumption seems to be a necessary consequence. This plainly shews the cause of its great obstinacy; accounts best for appearances; and points out a method of cure; different indeed from that commonly adopted, but not unsupported; having both reason and authority on its side; experience at the same time confirming its success.

In practice we discover a remarkable variety in both these diseases; and, at the same time, a plain analogy between them. In a scrofula, there is a material difference according as the tumors are more or less benign, and accompanied with more or less inflammation. Some are so mild that they readily admit of resolution, or may be brought to a pretty laudable suppuration, and so easily go off. Others are more unkindly, resolve or suppurate with difficulty, and hardly yield to any method. They are frequently

quently altogether untractable. In like manner, in a consumption we see milder suppurations of the lungs healing with small care and pains; at times a cure seems to be obtained, and some do perfectly recover: so that even in a true glandular consumption we are not without examples of cures. But if the habit degenerate, and accidents concur, other glands come to be affected, and in a higher degree, those parts that have been healed, remaining callous, are more liable to injury, and to apostemation; and thus the disease, acquiring new strength from accumulated causes, becomes highly aggravated, and in the end fatal. The unobserved attack of the disease, its slow progress, the latent fever, and long continuance of the cough, without any appearance of pus; these, and the like circumstances, shew the glands to be of a more indurated kind. Sometimes indeed, as in a bad scrofula, they are quite scirrhous, or almost cancerous, and

either never come to an abſceſs, or if they do, when the abſceſs breaks, they give an ill-conditioned matter, or foul ſanious diſcharge; cauſing a malignant eroſive conſumption, very eaſily communicable; melancholy inſtances of which are too often ſeen.

Anxious to give relief in an obſtruction of this ſort, and too readily adopting the ſentiments of others, I attempted long ago to reſolve it by the cautious uſe of calomel. The effects which one of greater experience would eaſily have foreſeen, did not at all correſpond with the notions I had formed; far leſs would they have juſtified any farther experiments of the kind. However, when crude mercury came to be better known, and the uſe of it more familiar, it promiſed to be more ſafe and more effectual than calomel: and indeed experience ſhews it to have very good effects, when given at a proper time, and in a proper manner.

A

A gentleman, by catching cold in the ſpring, contracted a hard, dry, frequent cough, attended with conſtant fever, night-ſweats, great waſting, and a meagre lurid countenance, which before was plump and ruddy. He received but little benefit, with regard to his cough, from what was done for him at this time. In ſummer he drank goat's whey; and when his fever was pretty much abated, he was allowed a glaſs of ſweet wine twice or thrice a day, by way of a little indulgence to habit. By this means he got fleſh, ſtrength, and a better look. But as the year declined he declined alſo. The apparent danger he was in from the enſuing winter, his cough being ſtill ſevere, called for ſpeedy aſſiſtance, and he took the mercurial pill. The effect was greater than I intended; for in a few days it made him ſpit a good deal. However, his cough preſently went off, and he ſoon recovered a fine complexion, and good health. Next year, in the decline of

the ſeaſon, his cough and other ſymptoms returned; not indeed to ſuch a degree as before, but ſo as to give freſh apprehenſions of danger. The pill was repeated, with more caution, but with equal ſucceſs; and he has had no return of the diſeaſe, though many years are ſince elapſed.

A young lady was, in autumn, ſeized with a dry cough and hiccup, which alternately teazed and exhauſted her. To theſe were joined pain of the ſide, ſlow fever, thirſt, foul tongue, clammy night-ſweats, with loſs of ſtrength and appetite, and a degree of looſeneſs. She had grown very faſt, and was juſt coming to her full height. Several of her family had died of conſumptions about the ſame age. Small bleedings, iſſues, muſk, and the mercurial pill, which had a ſenſible effect, recovered her from this threatening illneſs. Many years after, in the courſe of child-bearing, ſhe fell into a true purulent conſumption, and died. Other inſtances, not a few, might be

added, in which formed obſtructions of the lungs were, by a ſimilar method, happily removed.

But when the obſtruction will not reſolve, but terminates in an ulcer, a new malady then takes place, entirely different in its nature and circumſtances, as well as in its cure. In ſuch caſes I have with much patience, and often with expectation of ſucceſs, tried all the uſual remedies; but with ſo little benefit, that it is long ſince I had any dependence upon them; and ſome truly ſpecious methods have in experience yielded no greater ſatisfaction. Many, it is preſumed, are ready to acknowledge a like want of ſucceſs in the uſe of them. This, at the ſame time that it perſuades me of their inefficacy, ſhews likewiſe the great difference between the ulceration in the preſent caſe and that formerly conſidered, as frequently cured by a ſimple method, and very few remedies. The difficulty, therefore, of conſolidating the lungs when thus broken,

muſt not, as it commonly is, be imputed to the conſtant motion of the part; for that is the ſame in all caſes; but to a more appropriated cauſe, the bad diſpoſition of the ulcers themſelves. The gentle action of the lungs in reſpiration, inſtead of being hurtful, is of real uſe to preſs out the matter from the ulcerated glands.

So many are the contra-indications in a conſumption, that in no other diſeaſe are we ſo much perplexed, and preſſed on all ſides with difficulties. Opiates allay the cough; but beſides retaining the acrid matter, and cauſing greater infarction, they debilitate mightily, deſtroy the appetite, diſpoſe to ſweat, produce coſtiveneſs, heat, and inflammation; and, for the moſt part, are a hurtful and temporary relief only. Thoſe live as long, and are, upon the whole, as eaſy, who do not uſe them at all, as thoſe who uſe them daily. I do not here ſpeak of cough and conſumption from a catarrh, or eroſion. The remiſſions of the fever, for

for there is never a total abſence of it, ſeem to indicate the bark; the bark again, in a conſtantly feveriſh ſtate, may multiply or confirm the obſtructions; and, if the ſweats be checked, cauſe an increaſe of cough, looſeneſs, or hydropic ſwelling. If pectorals, ſo named, render the cough and expectoration ſomewhat eaſier, many of them generate phlegm, colliquate the blood, injure the ſtomach, and a flux of the belly is frequently the conſequence. Thoſe things, on the other hand, which dry the ulcers, do likewiſe ſtop the expectoration, and augment the fever and waſting. The fever and waſting require humectants; but theſe relax too much, make the ulcers ſordid, and add to the matter of colliquation. In every kind and ſtage, and for every ſymptom, a different method, or medicine, would appear to be neceſſary. What remedy indeed ſingly, or what combination of remedies, in common uſe, can ſatisfy ſo many indications as preſent themſelves in a con-

consumption; when the glands of the lungs are found in so many different states, crude, inflamed, suppurated, broken; and when, in consequence of these, a violent complication of inflammatory, hectic, and putrid fevers, prevails in the body? A consumption in the advanced stage, so variously and very oppositely circumstanced, so peculiarly complicated, and suggesting such a diversity of intentions, exhibits a most singular character of disease.

In mere tendencies to a consumption, perhaps in the very beginning of it, and in the convalescent state, riding may sometimes be of great use. In many cases, however, it is plainly forbidden; nor can the sick always bear it. The pain I often observed them to undergo in riding, as well as the little benefit they derived from it, made me early wish for another exercise, more safe, easy, and effectual, in all cases, if possible. Indeed, the frequent disappointment of my expectations from riding is more than enough

to convince me that it comes far ſhort of the high opinion many entertain of it. I am not ignorant that ſome, whoſe caſe was thought abſolutely deſperate, are ſaid to have been reſtored by it. But, beſide that there may be ſome doubts with regard to the diſeaſe and its period, a few extraordinary inſtances of cure, perhaps one in a thouſand, are not ſufficient to eſtabliſh a general eſtimate of the advantages thereof, far leſs to be urged as an infallible rule. If it be really ſuch a ſpecific as hath been affirmed, how comes it that almoſt all the patients die, even after full trial of it? Such in general is the inefficacy of riding, and ſuch is frequently the impropriety of it in particular circumſtances, that it will rarely prove a cure. As moſt people have it in their power, and really uſe it, not a great many can be ſuppoſed to periſh merely through the want or neglect of this exerciſe, ſo much recommended in a conſumption. It is to be feared rather that numbers

numbers have been, and daily are, injured by it. The disease, considered in every point of view, certainly demands the most gentle exercise; and forbids the use of such as may cause too quick, or too forcible, a circulation through the lungs; which, in their weak and diseased state, they can by no means sustain, without endangering a rupture of the vessels, or a suppuration of the parts *.

Milk has at all times been so highly celebrated in a consumption, that it is no wonder many are persuaded to believe it a sovereign remedy, and alone sufficient to work a cure. The notion of its great excellence, transmitted from age to age, from author to author, stands hitherto uncontroverted, being every where implicitly admit-

* To all this a mutilated passage of Aretæus seems to have a reference. He had before, we may suppose, been speaking of the exercise most proper in a phthisis; which, from what remains, it is probable he meant should be of the least troublesome kind, and such as requires no muscular exertion; * * * *quemadmodum in navi et tranquillitate*, cap. *de curatione phthisis*.

ted,

ted. Whoever, therefore, attempts in the leaſt to diſcredit a practice ſo long and ſo univerſally eſtabliſhed, muſt expect to be accuſed of preſumption or affectation; and perhaps, on an occaſion like this, of want of candour. But a little attention to facts and their conſequences will obviate all ſuch miſapprehenſions. While we willingly allow the uſe of milk all the merit to which it is juſtly intitled, we cannot, in mere deference to cuſtom and authority, ſuppreſs one thing; to wit, that it fails in almoſt every inſtance. Of this ſcarce any man who has the leaſt turn to obſervation can ſeriouſly doubt, ſeeing it is evinced by daily experience. When there is no fever, thirſt, or head-ach, and when the ſtomach is able to digeſt it into perfect nouriſhment, milk has been always found an excellent food; and even an excellent remedy, eſpecially in thinneſs, tending to a conſumption. In former times it was drunk in the quantity of ſome quarts a day; and, it

it is ſaid, with ſucceſs proportionable to the quantity. Leſs indeed is not adequate to the intention, nor can effect ſuch a total change of the humours as is wanted, and ſuppoſed to be produced by the uſe of it. In any quantity, however, it naturally diſagrees with many; and even in moderate quantities, though the utmoſt pains have been taken to make it agree, it frequently aggravates ſymptoms, or induces new ones. Few, I am ſatisfied, can boaſt a thorough cure by it. Even when it is thought to have ſucceeded, it is not certain that the caſe was always a conſumption, as here underſtood. Might it not have been owing to impoſthumes of a milder kind? or to ſome other affection reſembling a conſumption, in which the nouriſhing, ſtrengthening, reſtoring virtues of milk are acknowledged? Particular circumſtances may, no doubt, ſometimes concur, as at Stabiæ, to increaſe its virtues, or diſpoſe the body to a more ſalutary effect from

from them; but these do not take place with equal advantage in our climate. In a real phthisis I have never observed considerable benefit from any milk, butter-milk excepted.

While a consumption was supposed to be yet curable, (and every consumption at a certain period has always been reckoned so) I have often, with regret, seen a fit opportunity for obtaining a cure, lost, by an unprofitable spending of time in the use of milk, sometimes tediously protracted; as if nothing else could be done, or was needful to be done, and there wanted only perseverance to ensure the desired effect. But the success by no means corresponds with such a confident expectation. The utmost benefit that usually accrues from it, is only a small degree of better health and spirits, and a slight abatement of the symptoms; so far, perhaps, as barely to bring them to a stand; just enough to deceive the patient into higher hopes,

and a farther waſte of precious time, never to be retrieved.

Surely it muſt appear very ſtrange to every impartial obſerver, that, contrary to the daily evidence of facts, the ſuperior virtues of milk in a conſumption ſhould be ſo conſtantly aſſerted; that it ſhould be ſo unvariably preſcribed by the phyſician, and ſo entirely confided in by the patient, who, neglecting other more ſalutary means, at laſt finds himſelf miſerably diſappointed, and the diſeaſe advanced to a ſtate that admits of no poſſible cure.

It was obſerved that mild ſuppurations happening from time to time in the lungs, have been healed with ſmall care and pains. Little or no fever attended, except during the ſuppuration; the matter was well-conditioned, bloody at times, and equally mixed; and the ulcers probably were few, if more than one, and ſmall. In this caſe they approach nearly to the nature of a boil or common abſceſs, to which the lungs are ſubject as well as other

other parts; and the morbid glands, partaking but little of a ſcrofula, are more diſpoſed, as in a ſimple phlegmon, to be melted down into kindly pus. Hence milder ſymptoms, and the facility of a cure. The detergent balſams are of real ſervice here; provided their bad effects, from heating and ſtimulating too much, be corrected or prevented by repeated ſmall bleedings, when the pulſe will bear letting blood, together with the aſſiſtance of a cooling, lenient, vegetable, antiſeptic diet.

But I ſeldom find any good effect from them, and very often a bad one, when the tumors are of a more indurated, or a more highly ſcrofulous nature, and when there is much heat, or what there is feels biting, or of the hectic kind. The matter indeed may decreaſe, but it grows thinner and leſs digeſted; the breaſt becomes tight, the cough hard, and the breathing more difficult; which are all ſigns of the dry inflamed ſtate of the ulcers.

At

At other times they may, by their ſtimulus, occaſion an increaſed ſecretion, and immediate expectoration, of the purulent matter, ſo as to leave the ulcers bare and highly irritable. Juſt as, by frequently dreſſing and wiping an external ſore, the natural covering is taken off, and healing retarded. For pus is the balſam provided for the cure, as well as for the defence of ulcers; and to remove it in this manner, is evidently to counteract the moſt obvious intentions of nature. Nor is this all; for as the morbid glands are found in very different ſtates, the detergent balſams, while they are intended to cleanſe and digeſt, may, at the ſame time, increaſe the fever and inflammation; and diſpoſe to ſuppuration ſuch glands as are ſtill crude, or only inflamed, and yet capable of reſolution; which ought by all means to be attempted, in order to prevent greater purulence, and conſequently greater conſumption. From the vaſt numbers that die conſumptive,

tive, after a long and liberal uſe of balſamics of all kinds, we have a mortifying proof that remedies of this ſort are of ſmall conſequence towards a cure.

Let it ſuffice here juſt to obſerve that any of the balſams in uſe may be employed indifferently, when any of them can be properly exhibited, provided they do not offend the ſtomach, or produce an increaſed inteſtinal diſcharge, which they are frequently apt to do. The moſt celebrated of them do not appear to excel thoſe of ſmaller coſt and character, that lie within every one's reach. Tar, and the artificial balſam of ſulphur, with oil of turpentine, will, perhaps, be found to poſſeſs all the virtues requiſite. The former, which may be more liberally uſed, is well ſuited to the caſe of purulence from ſimple apoſtemation. The latter, in ſmall quantity, has been of ſervice in conſumptions from glandular ulceration, but of a more tractable kind. In order to diſ-

tinguiſh the nature of the ulceration, and in what caſes the balſams can be given with propriety, it may not be amiſs to obſerve, that matter diſcharged from a glandular ſuppuration, or eroſion of the lungs, has commonly a ſweetiſh taſte; if from a cyſt, it is fetid and diſagreeable.

In milder caſes of glandular ſuppuration the bark may alſo be uſed in ſmall quantities, as it keeps up the appetite and digeſtion, ſtrengthens the habit, and helps to conſolidate. The leſs there is of fever however, with ſo much the more ſafety and benefit may we uſe this remedy, ſo hurtful in other circumſtances.

In cold conſumptions, whether glandular or pituitous, bleeding is evidently improper. But if there be any conſiderable degree of inflammation, with ſizineſs, and a pretty full pulſe, bleeding not only abates the general inflammation, and that of the particular part affected, but, by drawing off ſo much of the old, heated, diſtem-

per'd fluids, makes room for new, cool, and founder juices. It alfo agrees well when the pulfe is good, though there fhould be no inflammatory difpofition, or fever to require it. For the lips of all ulcers are conftantly more or lefs tumid or inflamed; and, if great pains be not taken to extenuate them in time, by bleeding, and other fit methods, they will, by remaining long in this ftate, grow callous, and bring on an incurable confumption. Yet if the habit be not bad, the ulcers may, without impairing the health much, or proving foon fatal, continue to perform the office of a real iffue in the lungs for life, and with advantage. Nor is it to be doubted that nature may fometimes by this means, as fhe often does by ulcers in other parts, throw out fome noxious humours from the body, which would otherwife affect it more grievoufly, and fooner put an end to life. Some have lived many years in a confumption, with little uneafinefs. To at-

tempt a thorough cure here would be equally improper and ineffectual.

In caſe of tubercles, with the blood and pulſe conditioned as abovementioned, bleeding is of ſtill greater benefit, being notably helpful to diminiſh the fever, and reſolve the obſtructed inflamed glands when tending faſt to ſuppuration. But few, comparitively ſpeaking, will be found proper ſubjects of this operation; which in moſt caſes ſhould be employed with great caution and judgement. I do not conſider it at preſent, as merely palliative, but rather with a view to a cure. Bleeding to a certain pitch, will prevent ſuppuration; beyond that it may be the cauſe of abſceſs. If, on trying it, the pulſe grows quicker, and more contracted or thready, as it commonly is in a conſumption; if the blood be florid, or looſe in its texture, and the ſtrength appears to decreaſe, no good is to be expected from this method; which, if perſiſted in, will increaſe the danger, by exhauſting the

the patient too much, and diſpoſing his juices to colliquation. The conſumptive, for the moſt part, do not abound with blood; therefore little is to be taken away at once: and at a certain time, even when the ſtrength and ſpirits do not ſeem to be greatly impaired, every drop of vital fluid is precious, and the loſs of it irreparable; as all the aſſimilating powers are weak, and no more blood remains than is juſt ſufficient to maintain a feeble circulation. An officious concern to give relief by bleeding at ſuch a time, has cauſed ſudden coldneſs, depreſſion, and irrecoverable weakneſs. Nay, I have, oftener than once, known ſpeedy death to be the conſequence.

Opiates in general have been condemned, as they frequently do hurt, never cure, and ſeldom are palliative; for if they give as much uneaſineſs one way, as relief another, they are not properly palliatives. An exception however, muſt be made here. When from any cauſe undigeſted matter is

too quickly ſpit up, the ulcers, being thus ſtript of the lenient pus, become exceeding tender; and a long train of troubleſome ſymptoms enſues. Increaſe of fever, cough, and crude expectoration, inflammation and rawneſs of the throat, with hoarſeneſs, and all the diſtreſsful circumſtances which neceſſarily attend theſe, are the conſequences. Opium, as in the caſe of eroſion, now becomes neceſſary; and not only leſſens the ſecretion, but allows the ſecreted humour time to thicken, and, by reſting on the parts to defend them, and promote a better digeſtion. By this means ſlighter ulcerations may ſometimes be healed; and the bad effects of a conſtant expectoration of the purulent balſam prevented. But when the matter is thick, opiates render it ſtill thicker; cauſing oppreſſion in breathing, and difficult expectoration; which we may, in ſome meaſure, prevent by the proper correctives.

There

There is no single remedy usually advised in this disease, of more certain benefit than issues; but they are best suited to the circumstances of a beginning consumption. Though the good effects of them were not so evident from practice, reason pleads for their use in this state. An issue is an artificial weak part, and consequently lessens the impulse upon the parts affected by the disease, which, without such a precaution, might come sooner to suppuration; and this is what we are now solicitous to prevent. When bleeding cannot be so freely admitted, issues will slowly diminish the quantity of the fluids without impairing the strength. They are very effectual in rheums, particularly of the head, breast, and jaws, which have some relation to a consumption, which is often caused by a cold, and frequently a cough and tooth-ach succeed each other alternately. Many have grown fat by means of an issue. It must be owned indeed, that they are not so

certainly useful in the more advanced stages of a consumption. Yet, unless the body be much emaciated, they can do no harm, and it is possible may do good; for, though not possessed of any elective power, they undoubtedly draw off a portion of the putrid humours, in the constant discharge of heated, acrimonious lymph which they procure; and thus, in some degree, abate the fever and its consequences. There are also particular circumstances of the constitution, or of the disease, that may render them more necessary. Issues made by blistering are fittest in cold constitutions; but when there is heat and inflammation, they irritate and keep up the fever. Pea issues are easily borne; and a seton in the side has done remarkable service; especially when pain and weight of the part, or a sense of matter coming from that part in coughing, pointed it out as the proper place for a drain *.

In

* Nature sometimes finds a resource against a consumption, by forming an issue of her own accord, and thereby

In a disease that hath so often baffled every attempt, and in which all the ordinary assistances are found so inadequate to a cure, the utmost that art seems able to perform, or indeed commonly aims at, is to restrain its violence; and, by procuring a respite make the devoted patient live as easily and as long as possible. This end much to be desired, no doubt, though but a subordinate one, is best attained

thereby points out the necessity and advantage of a constant drain, both as a cure, and a preventive. A young man, going down into a lead mine, was struck with a suddden chillness. A degree of peripneumony came on, succeeded by a hard dry cough, and wasting, which continuing a long while, he was judged to be in a real consumption. Warm bathing and diaphoretics were directed. A foul eruption, with blotches, broke out over all his body, and saved him. The fourth history in chapter third, affords an example of the same kind. Those affected with an ulcerated external scrophula seldom fall into a consumption; because the discharge outwardly diverts the humors from the inward parts, and prevents infarction in the lungs. It is observed likewise that some grievous internal disorders, depending on a latent scrophula, and threatening a consumption, have been sensibly relieved by an external glandular suppuration.

by

by a ſteady adherence to a diet the moſt ſimple, and lightly nouriſhing, that ſupplies no matter to the diſeaſe, nor cauſes any labour to the degeſtive powers, whether of the ſtomach, or the ſubſequent concoctions. Of this ſort is the diet of people in the lower ſtations of life, whoſe condition affords them only a moderate proviſion of homely ſuſtenance, wholeſome indeed, but not too rich and nouriſhing; which, though they may reckon it their misfortune in health, is now, under the preſſure of ſuch a malady, their peculiar happineſs. It retards the progreſs and increaſe of ſymptoms, and ſo prevents greater waſting.

But, to be more particular, an early and conſtant uſe of butter-milk, ſo as not to cauſe a diſtaſte of it, and more or leſs ſoured, according to circumſtances, will be found moſt effectual to alleviate the ſymptoms, fever, thirſt, ſweating, and looſeneſs; and render life ſupportable under them.

them. When it agrees, it seldom fails to do good. It is sufficiently nourishing, rarely gives uneasiness to the stomach, serves both for food and drink, so that scarce any other liquid is necessary. If the thirst be great, diluted with tepid water, it makes a grateful cooling refreshing beverage. Besides, it is opposite to the putrid, inflammatory nature of the disease. And as the vehemence of the cough depends much on the degree of fever, by restraining this, it will give great relief in that also.

When butter-milk is disliked, or disagrees, and a more elegant variety of food is required, the sick may have recourse to sago, salop, vermicelli, barley, or rice, gruel, panada, and the like, all made rich with juice of oranges or lemons, syrup of these juices, or some pleasant fruit jelly, such as that of rasberries, plumbs, and currants. Flummery of oatmeal, and barley-meal porridge, eaten with milk, will make an agreeable change; as will likewise roots, herbs, and fruit,

if

if they do not occaſion gripes, wind, or looſeneſs. In low, cold caſes might not ſhell-fiſh, when they can be had, or the broth of them, be a proper aliment, and ſallads of the marine eſculent plants?

In caſe of lowneſs from ſuch meagre diet, I would rather, when great heat does not forbid it, gratify the ſick with a little wine to ſupport them, than allow them even a ſmall pittance of animal food, though uſually reckoned, but very injudiciouſly, more nutritive and ſtrengthening. The richer the food, the leſs able are the concoctive powers, now greatly impaired, to ſubdue and aſſimilate it. Hence an increaſe of fever, irregular diſcharges, and all thoſe ills that ariſe from the want of a due digeſtion. It is remarkable that thoſe who went to ſea in a conſumption ſcarce ever obſerved any rule as to diet, but ate of every thing indifferently; and ſome did not confine themſelves within the bounds even of temperance, yet received a

cure.

cure. The ſame indulgence would ſoon have proved fatal at land.

Bleeding, iſſues, a prudent uſe of crude mercury, and of the natural balſams, accommodated to the kind, ſtage, and degree of the diſtemper, proper diet, and living at ſea, ſeem to comprehend every thing eſſential to the cure of a glandular conſumption of the lungs. Almoſt all other things are of ſmall value. They may be occaſionally and accidentally good, but their virtues are in no degree proportioned to the greatneſs of the malady; nor are they ſuited to its various contra-indicating ſymptoms. As there effects, therefore, are very limited and uncertain, they can at moſt be only palliative, and are not to be depended upon in any intention of conſequence.

As ſailing, from its peculiar nature and circumſtances was early accounted a remedy in ſundry caſes, ſo, from its ſpecial conformity to the diſeaſe, it has been long held of principal uſe in a conſumption, by thoſe of greateſt name,

name, Phyficians and Philofophers, in different ages and nations. Thus Cælius; Geftation in a fhip, and a long fea voyage, are of the greateft ufe. And Aretæus; If nothing forbid, let the fick be carried to fea, and there let him live. Celfus likewife; If it be a real phthifis, a long fea voyage is neceffary, when the ftrength will bear it. If through great weaknefs that cannot be undertaken, it is yet beft to go fome way by fea, though not far. Pliny obferves that riding is of the greateft ufe in difeafes of the ftomach; failing in a phthifis. In all kinds of confumption, fays Dr. Mead, change of air is generally good, fometimes a long fea voyage. Nor has Boerhaave omitted failing, as a proper means to break the abfceffes of the lungs, and deterge them when broken*

In

* Et propterea utilis navalis geftatio, atque longa navigatio. Cælius Aurel. lib. ii. cap. 14. *de phthifica paffione.*

Nam fi recte habuerit ægrotans, in mari geftatio fieri poterit,

In this simple method of sailing, a strong alterative virtue in sea air, an air duly qualified, so as to render it a fit application to the lungs externally; and a singularly adapted exercise; all concur toward the cure of a consumption.

Though a pituitous consumption does not fall within the limits of this undertaking, let it be observed that the immediate cause of it is an increase of the ordinary secretion of the lungs, depending on a less compacted, or acrimonious state of the fluids, and a weak state of the glands. The curative intentions then will be to divert the matter of secretion from the lungs; to give the juices a more

poterit, atque ibi vitam deget. Aretæus *de curatione phthisis.*

Quod si vero phthisis est opus est, si vires patiuntur, longa navigatione. Si id imbecillitas non sinit mare tamen, sed non longe, vectari commodissimum est. Cels. lib. iii. cap. 23.
Plin. hist. lib. xxviii. cap. 4.
Mead monita et præcepta medica. cap. *de febribus lentis.*
Boerhaavii *aphor.* sect. 857, 858.

balmy

balmy confiftence, and to ftrengthen the orifices of the excretory ducts. How far failing is fitted to anfwer thefe intentions, experience muft determine. In the mean time a conjecture may be formed from what has been faid concerning the nature and effects of the the fea air, exercife, and ficknefs.

Spitting of blood.

Spitting of blood is both the forerunner, and the caufe, of a confumption, as well as a fymptom of it. It is frequently a difeafe of itfelf, when it happens in the way of tranfudation; and fome are habitually fubject to it for a great part of their lives, from this caufe, without much danger, or any confequent difeafe. Tumefied glands compreffing the veffels, may occafion their burfting. If a cruft happens to form on the rupture, pus is generated. And when the blood falls into remoter branches of the windpipe, and is not coughed up, it corrupts,

corrupts, becomes acrid, and brings on erosion. In these cases the exercise and vomiting at sea will tighten the relaxed orifices of the vessels, make a strong revulsion, and discharge what is extraneous in the lungs. Besides, the sea air is a healing application. Pliny in his history informs us that Anneus Gallio sailed for the cure of a consumption, and spitting of blood. And the younger Pliny relates that Zozimus, his freedman, was cured of the latter by sailing to Ægypt, and staying a long time there. In this complaint Celsus advises living in maritime places during winter*.

A wo-

* Præterea est alius usus multiplex (aquæ marinæ) principalis vero navigandi phthisi affectis, aut sanguinem egerentibus; sicut proxime Anneum Gallionem fecisse post consulatum meminimus. Neque enim Egyptus propter se petitur, sed propter longinquitatem navigandi. Plin. hist. nat. lib. xxxi. cap. 6. This is the Gallio mentioned Acts 18. proconsul of Achaia, and brother of Seneca the philosopher.

—— frangeret me tamen infirmitas liberti mei Zozimi, nam ante aliquot annos dum intentè instanterque pronunciat,

A woman, ill of an immoderate flux of the menses, found the discharge almost wholly restrained, whenever she went to sea *.

Difficult recovery.

By the long continuance or severity of a malady, the digestive and assimilating powers are impaired; and the fluids, being heated and deprived of their balmy spirituous parts, or acquiring vicious qualities, become unfit for nutrition and animal uses. Hence that depravation of humors known by the name of a bad habit, and taken notice of as the consequence, as well as the cause, of diseases. Perhaps, through an imperfect termination, some lurking remains of the disease may still be left, more or less apparent, which nature in its de-

pronunciat, sanguinem rejecit; atque ob id in Egyptum missus a me post longam peregrinationem confirmatus rediit nuper. Plin. epist. 19. lib. ix.

Cels. lib. iv. cap. 4. sect. 5.

* Speed *comment. de aqua marina.*

pressed

pressed state is not able fully to expel or subdue.

Exercise and change of air have always been chiefly trusted to in a slow doubtful recovery, and found effectual, when other methods failed, to prevent a relapse. A greater change of air cannot well be imagined than what is made by going from land to sea. The air of Great-Britain is, in many respects, highly unfavourable to those who continue to languish after a disease, or have their constitution impaired by it. How much exercise, and the air at sea, contribute to enliven and meliorate the vital fluid, is evident from the histories above given. In most of them a greater degree of recovery was obtained by living a short time at sea, than could have been expected in a much longer time at land, if at all, in our climate. The effects almost constantly were, good appetite, better spirits, an abatement of symptoms, and increase of strength;

 a few

a few days, usually making a surprising change, both as to the general health, and the disease in particular.

Sailing was directed in atrophy, as well as cachexy; and, according to Ætius, the alternate motion and rest one undergoes in it, if any thing can, will dispose the body to be nourished. I am informed it has long been a common remedy in the nervous atrophy particularly, succeeding the dry belly-ach, which is so frequent in the West-Indies. Upon the abatement of symptoms, says Dr. Towne, and recovery of the patient, Sydenham very justly recommends riding, as a prevailing means to prevent the return of the fit, invigorate the bowels, and strengthen the concoctive powers. I have frequently experienced the good effects of this advice. But there is still another exercise, which I have observed to be of more speedy, more lasting, and more effectual benefit; and that is, being carried round the island in a ship or sloop, which is a convenience

few

few need want in Barbadoes. I have seen those who were reduced to the most calamitous appearance, and even upon the verge of the grave, from a long-continued cholic, in a week's time recruited to a degree beyond expression, only by this method of sailing, when they were incapable of undergoing any other kind of carriage*.

* Towne *on the diseases of the West-Indies*, chap. *of the bilious colic.*

C H A P. VI.

Of the right use of sea voyages.

IN all the circumstances that related to navigation as a remedy, the ancients were curiously particular, and made many distinctions; as, whether it should be performed on the sea, or in rivers; whether near the shore or in the open ocean; whether in larger or in smaller vessels; in ships or in barges; with sails or with oars; in a vehement wind, or in a moderate gale. Sailing in a harbour, and on a lake, are likewise mentioned. To some a long voyage, or living at sea, was prescribed; to others a shorter. So exact were they, and so cautious, that Herodotus directed to begin with sixty stadia, about seven miles, and by degrees to double that distance. I shall offer on this head what has occurred to me from observation, or appears reasonable in the way of conjecture.

An early recourse to remedies has been constantly enjoined in all medical

cal advices. But as sailing is attended with such seeming inconvenience and hazard, that few undertake it without fear and reluctance, it should never be proposed unless it be truly proper, and the degree of the malady require it. But in some cases it is so plainly indicated, that I never hesitate to advise it from the very beginning. In a consumption, how many die daily by having despised or neglected the distemper at first, and by trusting afterwards to ordinary methods and remedies. It is no uncommon thing to see such flying their country to breathe a foreign and a finer air, when, alas! they have not lungs wherewith to breathe at all. That so few recover by such a practice is not to be wondered at; for both the circumstances and the event shew the impropriety of it. When a cough first begins to be attended with a hectic, sweating or wasting, and loss of appetite, and to cause troublesome nights, the danger is too apparent. No remedy

dy of efficacy is now to be left untried, either by itself, or in conjunction with others; because, if we mean to attempt a radical cure, or if that be possible, every assistance will be required, and, after the most diligent use thereof, all may still prove ineffectual. At no later period can any thing be done with so much probability of success; and therefore, though failing has had great effect, even in the purulent state, no reasoning can justify its being postponed to that period, in which a cure is still more uncertain and difficult.

Indeed when the tubercles are numerous, seated deep, and of an unconquerable hardness, as they often are; it would be in vain to expect a cure; especially if there be a narrow chest, great adhesion, or an hereditary disposition to a phthisis. Yet even in this case, where we can only palliate, some have received wonderful relief by living at sea, and the inevitable event hath been long retarded. Nothing

thing seems to be so fit or effectual in such a state, as the kindly vapour bath of sea water, to soften the indurated glands, and, for a time at least, preserve the lungs in some measure pliant and pervious.

I have generally found sailing safe and successful, with respect to health, in good and in bad weather, in winter and in summer, and in very different climates. In directing it therefore, a nice attention to these in general is not requisite; and the necessity of the case prescribes the rule as to the time: the quick progress of the disease does not admit of any delay. In certain cases, however, a regard to circumstances will be necessary. The asthmatic, for instance, should be sent to sea, when the vapour is most impregnated with the saline humidity, or when the weather is fair and serene, according to the cause of the asthma, and the experience of what does good or ill to the patient. A dry warm cli-

mate

mate is the moſt ſuitable to rheums and dropſies, as it increaſes perſpiration and diſſipates the ſtagnant or ſuperfluous humors. Sometimes foul and ſtormy weather may do moſt good; for then the exerciſe is higher, and all the aërial influences are more ſtrongly impreſſed on the body. Therefore it promiſes to be of greateſt uſe in diſeaſes ariſing from a groſs habit, and a degenerate ſtate of the glands, particularly in a conſumption. See hiſtory the firſt, fourth, and fifteenth. During ſuch weather they inſpire, in full draughts, a ſpirituous ſaline air, or rich balmy humidity, cooling and deobſtruent, and fit to deterge or heal the lungs, according as they are found to be differently affected in the different ſtages of a conſumption. And that they may loſe none of the benefit, the ſick ought to keep on deck as much as they can with ſafety, and expoſe themſelves to the immediate free influence of this truly ſanative air and powerful exerciſe. This I have con-

ſtantly

ſtantly enjoined, and my patients have always faithfully complied therewith. It may be farther obſerved, that a temperate climate, where the weather is conſtant, ſeems to be fitteſt in a conſumption. Cold occaſions a conſtriction of the lungs, and checks their perſpiration. Heat cauſes feveriſhneſs, and greater impulſe upon the diſeaſed part. In ſummer let them ſail northward, in colder ſeaſons to the ſouth. But it is only from obſervation that we can judge what climate is beſt in mere obſtruction, and what in an open ulcer, of the lungs.

I have ſtill leſs difficulty in adviſing a voyage by ſea, even in the leſs favourable ſeaſons, becauſe the patient is thereby moved into a warmer and more kindly atmoſphere. Theſe circumſtances being carefully attended to, will naturally determine us to ſend the diſeaſed to a ſouthern climate; nothing being more dreaded by them, or more hurtful to them, than the frequent ſudden changes and extremes

of weather, to which, in our insular situation, we are very much exposed through a long winter.

Those of greater delicacy, and liable to nervous spasmodic affections, should sail at first in smooth water, in a port or bay, when the air and season are mild. Such are easily overcome, or apt to have their spirits put into irregular motions; and therefore, cannot bear any high degree of exercise without disturbance, or disagreeable accidents, and the danger of having their disorder increased. See history twelfth.

If, from doubtfulness of the case, or the patient's weakness, his fear, or aversion to the sea, it be not thought proper to advise, or if the sick do not chuse to try a voyage, the next expedient is to live on some small island, or on a coast duly exposed, close upon the shore, where the vapour from the sea exceeds the exhalations from the land, so that the kindly influences of the former prevail. Here they may sail

more

more or less every day, in order to observe how they bear it, what effect it has, and so gradually accustom themselves to the unusual motion, till they become able to bear a longer voyage to sea.

Thus sailing may be adapted to all cases and circumstances. By sailing in a larger or smaller vessel, at a greater or less distance from the shore, in a smoother or rougher sea, we can give more or less exercise and sea-sickness, exciting only a simple nausea, or increasing it to vomiting, and continuing it a longer or shorter time, as the nature of the disease may require, or the conditon of the sick allow. It is probable that the ancients had a view to these several circumstances, when they were so particular in their directions about sailing; which, however, in some things appear to be rather too refined, than of any real importance or necessity. In various cases I recommend going out frequently in a boat an hour or two in the tide, for the sake of

of a sea vomit; which is the safest, at least the most effectual of any, having all the good, and none of the bad, effects of artificial vomits.

But to regulate the exercise, so as to give the patient a just degree of commotion suited to his particular circumstances, it should be farther attended to, that the highest exercise is when the ship, to speak somewhat in terms, pitches, as she does when going upon a wind, that is, within six points of it. It is most felt at stem and stern; for a very obvious reason, therefore, the agitation must be least at the middle. So that if one lies along athwart the ship, the motion will be much the same as rocking in a cradle. But when the ship goes right before the wind, there is a rolling motion, so violent sometimes as to give great disturbance, which may be rendered easier by lying along the ship. Sailing with a brisk gale, and the wind on the beam, as it is called, the ship heeling to one side, is kept steady, and running parallel

with

with the surge, neither pitches nor rolls, and consequently the motion is not so violent. The smaller the vessel, the more one may be said to live at sea, being more immediately on the water, and the motion must evidently be more quick, vehement, and sickening, than in a larger vessel.

In order as much as possible to remove all cause of uneasiness and danger from the commotion, and dispose the body to receive the sea influences with advantage, some preparation may be necessary before the voyage; such as bleeding, and cleansing the first passages, if such evacuations be indicated. Nor is the sickness to be depended on for this latter purpose, because some are never sick at sea, and others grow costive. Proper methods should likewise be used at sea, to prevent excessive vomiting, astriction, and looseness. Sometimes a course of deobstruents, alteratives, or balsamics, according to the nature of the disease, might be directed to assist in the cure; but hitherto

to I have trusted entirely to failing. When a milk diet is necessary and agrees, those of condition may have goats, an ass, or a cow on board. The animals should be kept in an airy part of the ship, and combed or curried every day, both for the sake of health, and to improve their milk.

Some diseases are peculiar to a certain period of life; which being happily got over, there is seldom much danger afterwards, when a right manner of living is strictly observed: this is particularly true of a consumption. Perhaps it would not be an useless precaution for those of families in which these diseases have been remarkably fatal, to pursue a sea life at a proper time, and thereby, if possible, prevent the like catastrophe.

A consumption rarely invades any under fourteen years of age. From this time the state of the health should be carefully attended to. If the subject, not to mention other particulars, is thin or florid; liable to coughs, rheums,

rheums, and fits of looseness; and discovers uncommon sprightliness or genius, the most powerful methods of prevention are required to avert the danger. Sea air bids fairest to mend the habit, and procure that soundness of lungs which preserves from phthisical disorders *.

A like observation I have made on a dry rocky coast, where the inhabitants live in a fresh sea air, are often in the sea, and eat shell-fish; among them a consumption is rare. In an inland country, not many miles distant, the disease is frequent, though the soil is generally dry.

Even before the period of fourteen, a great deal ought to be done, if from circumstances of constitution, or a family

* Inter innumeras mulieres quæ victum quotidie eruendis conchis ad littora quæritant, vix unam invenies cujus putridi sunt dentes; contra autem firmæ sunt plerumque gingivæ, plumones sani, tussique scorbutica liberi. Idque præcipue ipsis inde contigit, quod aër salinis undique particulis, a maris superficie effluentibus, vel potius ab undarum flictu elisis, abundat. Russel *de usu aquæ marinæ*, p. 76.

mily taint, there be reaſon to ſuſpect a tendency to conſumption. The things that promiſe to be of greateſt uſe are iſſues, milk, light ſteel waters, the bark; frequent changes of air, eſpecially of land air for ſea air; riding long journies; frictions, and warm clothing during the cold ſeaſons; drinking ſea water at proper times, and bathing in the ſea in warm ſeaſons; and ſometimes crude mercury. Theſe, judiciouſly accommodated to the particular condition of each ſubject, will ſtrengthen the whole frame, remove acrimony, give ſuch a due conſiſtence to the fluids, that they may circulate freely in the extreme veſſels, and ſo prevent coheſions and ſtagnation in the glandular ſyſtem. A preventive method timely undertaken, and carefully purſued, would ſave many who now periſh.

As the terror of dying at ſea is a great diſcouragement, I have always ſo contrived the voyage that, if a ſea life ſhould not agree, or death be apprehended,

prehended, the sick may go to land, or have time to return, before a bad accident or a bad event can take place, in the ordinary course of the disease.

It is almost needless to say how long the sick should live at sea. Regard to their own safety certainly will, or should determine them to continue till the disease is cured, and a confirmed state of health regained. In this, however, the nature of the malady, its degree, its duration, the danger that attends it, and other circumstances, must direct. Some, as appears from the histories, recover in two or three weeks or months. In others, sea-sickness for a few hours or days has been sufficient. Sometimes years may be required to complete the cure, and secure against a relapse. Not that patients need, in all cases, to be constantly at sea, they should only now and then go a voyage; which, from the benefit received, several have been encouraged to do. This, it is believed, would prove more effectual than sending

ing the ſick to drink ſpaws or milk, or, as is very often done, to make fruitleſs peregrinations by land: at leaſt, when all theſe have availed little, and tedious courſes of medicine have proved ineffectual, ſailing has been tried with ſucceſs.

But a farther illuſtration will be neceſſary here, and with particular reſpect to the diſeaſe principally in view. In a ſcrofula the tumors commonly begin to appear toward the winter ſolſtice, and continue to increaſe, till ſummer, for a time, puts a ſtop to their progreſs, and perhaps, in ſome meaſure, diſſipates them. But the decline of the year produces new appearances, or increaſes the obſtructions, not wholly reſolved; and, if a proper method be not then purſued to reſolve them entirely, the tumors increaſing, come at length to inflame, ſuppurate, and break. In like manner a cough, from glandular ſwellings in the lungs, frequently comes on in winter; continues and increaſes during the ſpring: the

the symptoms may cease in summer; but in autumn they all return; and sooner or later the disease ends in purulence.

While tubercles of the lungs are yet in a resolvable state, and the body is not much emaciated, nor the hectic heat great, the warm kindly air and seasons of spring and summer relax the obstructed glands, constricted before by the cold of winter; and, allowing a greater freedom of circulation, promote a resolution. Indeed the symptoms have sometimes abated so remarkably that, in any other distemper, appearances equally promising would have authorized our predicting a thorough amendment. But if the obstruction be so fixed, as not to admit of resolution, or pus is already formed, the summer's heat will increase the fever, and impulse on the obstructed glands, of consequence bring them sooner to suppuration, and, by the breaking of the abscesses, hurry on all the aggravated symptoms of a deep con-

consumption. For now the sick being kept almost sleepless, and exhausted by a perpetual cough, are alternately parched with heat, and melted down in sweat; a dropsical swelling comes on; they are wasted away by a draining looseness; and still farther consumed by a constant and daily increasing purulent expectoration. Thus it frequently happens, contrary to a general notion and expectation, that the weather and seasons, seemingly most favourable to the consumptive, instead of being salutary, prove in reality the reverse, and every way the most distressful and the most dangerous.

To apply all this to the purpose in hand, such hath sometimes been the effect of living at sea in a beginning consumption, that all the symptoms have disappeared, and a cure seemed to be perfected, as was just now observed. By this the sick, no longer perceiving the necessity of a sea life, have suffered themselves to be deluded into a fatal security; but were convinced

convinced of their error when too late, by a return of the distemper, now more obstinate and quicker in its progress. In short, the most hopeful appearances are not to be suddenly trusted. An advantage gained should be steadily pursued, and the happy occasion of securing success seized and improved, so that the disease, or a tendency to it, may, if possible, be quite overcome. One voyage, and not a very long one, hath, in some instances, proved a complete cure, when undertaken in time; and in most cases it may so far resolve and reduce the tumefied glands, that they shall lie harmless in the soft substance of the lungs, without being an impediment to their motion, or other uses in the animal œconomy. But while the smallest obstruction remains, or even a disposition to obstruction, changes of seasons, accidents, and an incautious manner of living, will renew the growth of the tumors, or produce others, which are neither to be pre-

vented nor removed, but by repeated ſailing, or ſomething elſe no way inferior to it in efficacy. This however, notwithſtanding the reſearches of ſo many ages, art has not yet been able to diſcover.

The foregoing obſervations ſupported by facts and appearances in the courſe of the diſtemper, clear up the obſcurity as to its nature in ſome material points, and give a plain reaſon for the good and bad effects of warmth and warmer ſeaſons, on different ſubjects, and even on the ſame ſubject at different times, according to the different degrees of obſtruction.

From them we alſo perceive why oppoſite ſeaſons are equally productive of bad effects; autumn and ſpring being alike unfriendly, though in a different manner, to the conſumptive.

At the ſame time they ſhew the neceſſity of a ſpeedy and effectual remedy, to prevent the hurtful conſequences of hot and cold ſeaſons. This indeed is no other than a timely reſolu-

tion,

tion, in part at least, of the obstructed glands; which, from the growing heat, are so apt to run into inflammation and abscess; or to be constricted by cold, which, joined to the moisture of the declining year, increases the old obstructions, or lays the foundation of new ones.

They afford likewise some necessary hints, as to the expediency or inexpediency of living in a warm climate, the place to be chosen, and the particular period of the disease in which a cure may be expected.

And they will be still farther of use to assist us in the right choice and application of remedies, commonly directed in a consumption, and the several stages of it, by shewing the inutility of some, the impropriety of others, and the danger of many, either in themselves, or from an undistinguishing administration of them.

Beside repeated sailing, those who would effectually provide for their safety should, for a great part of life,

or

or till the moſt dangerous period is over, obſerve all thoſe rules and cautions which art hath ſuggeſted, as of uſe to perfect recovery, and prevent a relapſe. The chief of theſe are a ſtrict regard to diet and manner of living; iſſues; bleeding at proper ſeaſons, if requiſite, and carefully avoiding every thing that may impair the habit, or create a diſeaſe, eſpecially a fever. From either of theſe the danger is great. But the injury done to the lungs, in a weak phthiſical diſpoſition, by the impulſe of an acute illneſs, is for the moſt part irreparable: and, but for this accident, numbers might have eſcaped, or for a long time retarded their fate. See hiſtory eighth. By neglecting the neceſſary precautions, or indulging themſelves in irregularities, many have defeated all the good effects of a ſea voyage, when, from every circumſtance, there was reaſon to expect a laſting cure.

Many remedies taken from the ſea were in uſe among the ancients; failing;

ing; salt and sea water in different forms, and for divers purposes; bathing and swimming in the sea; rolling in the sea-sand, sweating in it; living in maritime places, and feeding on such things as the sea produces. The consumptive were directed to go from a moist situation to a dry, and from a dry one to a moist one; though the patient's native soil was often preferred. Whatever may be their effects in a lower degree, the usual changes of air with us do very little toward a cure. Humidity and dryness are qualities too simple and disproportionate, unless accompanied with others of greater energy, to render such changes more effectual than experience has yet proved them to be. If any benefit is expected from them at land in our island and climate, and a long voyage is declined, I would advise the patient to live on a dry and somewhat elevated shore, with a southerly exposition; to ride a great deal, and close by the sea, especially during the

the flowing tide; to be frequently among the rocks that have been overflowed by the ſea, and to ſail every day, in order to breathe as much as poſſible in the vapour or ſpray, that the lungs may be therewith frequently moiſtened. Or let him live on board, riding in a bay, more or leſs open; from which ſome have received a cure, ſee hiſtory third; and with others, as they informed me, it has agreed better than ſailing. Something more than mere moiſture will thus be communicated to the lungs; ſomething truly medicated, and happily ſuited to their nature, function, and preſent morbid ſtate. In ſuch an air they will at leaſt live as ſafe and eaſy as in dry inland places, which are commonly made choice of, and where, inſtead of recovering, almoſt all the ſick die.

In ſuch a method, long and ſteadily purſued, a milk diet, if it agrees, will properly take place. This too was a great practice among the ancients,

cients, and attended with more ſucceſs than in our age and climate. Equally attentive to circumſtances of the conſtitution and of the lungs, they endeavoured to cure the ulcers by remedies both external and internal. In which intention milk was highly eſteemed, eſpecially that of Stabiæ, where the luxuriancy of the paſture abounding with many plants of healing virtues, was an additional recommendation of its uſe, and gave it greatly the pre-eminence. Hither the conſumptive were ſent, not only on account of the excellency of the milk, but likewiſe of the vapour and exhalations ariſing from the ſea on one hand, and from Veſuvius on the other *.

To

* The mons lactarius of Caſſiodorus is thought to have been here; a place in former times of much reſort, and celebrated, in very different periods, for the ſalubrity of its air, and abundance of rich milk; which, from the nature of the paſture, was found very medicinal and reſtorative. On occaſion of one Davus going thither in a conſumption, he thus writes: Huic ferociſſimæ paſſioni beneficium montis illius divina tribuerunt: ubi

To practiſe with ſucceſs, we ought to know diſtinctly what is truly indicated in the diſeaſe, and to attend with ſpecial care to every indication, or, in all

ubi aëris ſalubritas, cum pinguis arvi fœcunditate conſentiens, herbas producit dulciſſima qualitate conditas; quarum paſtu vaccarum turba ſaginata lac tanta ſalubritate conficit, ut quibus medicorum tot concilia neſciunt prodeſſe, ſolus videatur potus ille præſtare; reddens priſtino ordini reſolutam paſſionibus vim naturæ. Replet membra vacuata, vires effœtas inſtaurat, et fomento quodam reparabili ægris ita ſubvenit quemadmodum ſomnus labore fatigatis. Caſſiod. lib. ii. *variar*. epiſt. 10.

Neopolitani medici pro ultimo refugio ægros phthiſicos, et qui ſanguinem expuunt, vel ejuſmodi thoracis ulcera, et alia vitia patiuntur, ad Tabeas mittunt, cum ſucceſſu adeo ſalubri ut ſint qui totam in iis degant vitam. Baccius *de thermis*, lib. iv.

Ante aliquot annos illuc (Tabias) nobilem noſtratem nomine Cotton, phthiſicum confirmatum, miſi, pus cum ſanguine ſpuentem, ac ſceleton membrana pergamena veſtitum præ macie referentem; qui a reditu plane reſtitutus nuptias contraxit, ſaniſſimus in familia degens, plurimorum liberorum parens. Mayerene.

Milk is often drunk with us under great diſadvantages; either where there is no real fitneſs of air, or in mooriſh mountainous places, where the frequent fogs, and natural wetneſs of the grounds, cauſe, even in ſummer, a cold and moiſt atmoſphere, than which nothing can

all probability, we shall fall short of a cure. In a true glandular pulmonary phthisis, with purulence, the ulceration of the lungs, and a dyscrasy of humors, immediately present themselves as the chief indications; and, according to reason as well as good practice, the healing of the one, and amendment of the other, ought to be jointly pursued. When we endeavour therefore to cure a consumption by remedies that respect only the ha-

can be more hurtful to the lungs. Fit places in all respects opposite to these, and of consequence more friendly to the lungs, may be found on sea coasts, as Stabiæ was. Might not something greatly to the emolument of the sick, be formed upon the plan of Stabiæ, in different parts of Britain. The air, climate, soil, pasture, and situation conspired to render it a most healthful retreat for the consumptive; and the necessity of such a retreat with us will appear, when we consider that, from the usual resorts, few, if any, ever return cured of a true phthisis. I have been the more particular on this head, in order to shew, as a matter of curiosity at least, the conditions of a place concerning which I find so much said; and likewise because the practice in consumptions has, at all times, turned so much upon the proper use of milk, and the right choice of air.

bit, we labour in vain, becaufe we fatisfy only one indication, while another, no lefs important, equally demands our care. We might as well attempt to cure a finous, fordid, or other bad ulcer, by a general or pretended fpecific method, without the affiftance of the hand, or a fuitable local application. An ulcer is the fame every where, and the fame topical remedies, adapted to the nature and fituation of the part, muft be every where equally ufeful and neceffary. All the moft appropriated internal methods are daily employed, with little or no advantage, to correct that vice of the fluids which fo much oppofes our intention of healing. The difeafed ftate of the lungs, weak and wafted, broken or eroded, inflamed or obftructed, is totally neglected, as to any application that might be made to them externally. May not the want of attention to fuch a material circumftance, be a chief caufe of the want of

fuccefs

success so frequently in a consumption.

But however reasonable and necessary external applications to the lungs may be, when rightly contrived, the disadvantages that attend their use are obvious, and not easily remedied. From the great delicacy of the parts concerned; their present morbid state; and the particular qualities of the substances employed; they will, to many, be too heating and irritating, too constipating and too relaxing; and those of greatest energy are plainly dangerous. Besides, few will readily comply with such a long and constant use of them as may be required; which is the chief reason I apprehend, why they have been, and are still likely to remain, so much in disuse. Happily all that can be proposed by using them, hath, if I am not deceived in the observation, been provided by nature, in the spray and vapour of the sea; the virtues of which are heightened, or more effectually communicated, by

the co-operation of the exercise in sailing; and thus the benefit that accrues from them is obtained, without the least uneasiness to the patient, hazard in the application, or the necessity of a troublesome apparatus.

CHAP.

CHAP. VII.

Objections.

THE following objections having frequently been urged, it was thought proper to answer them here, in order to render more complete the theory of sailing and sea air, as they respect medicine.

The first and most obvious objection against going to sea is the danger of it.

On due enquiry it will, perhaps, be found that, out of an equal number, as many die of epidemical and other distempers, and by accidents, at land as at sea; where the air and exercise, by giving a strong appetite, good spirits, and higher health, are great preservatives from disease. A sea life is rarely the cause of chronical ills *. Most sea-faring people perish

* Navis non est locus ad alendos chronicos morbos, Ramazzini *de morbis artificum*, cap. 10. *supplement.*

through their own indiscretion, habitual intemperance, violent and often unnecessary labour, exposing themselves incautiously to heat and cold, and the like hurtful practices; which, added to the frequent changes of climate, and the unavoidable occupations of a sea life, are, no doubt, the causes of acute diseases, as well as of other maladies, and consequently shorten the lives of many. But few die, who have resolution to preserve themselves from excess and irregularity; and from these such as go to sea on account of health, are necessarily restrained.

But even that terror which arises from the apprehension of danger, is often a principal means of cure. In any illness, all emotions whatever ought, in general, to be suppressed, and cautiously avoided, as every day's experience shews their bad consequences. But the great alterations produced in the body, sometimes instantaneously, by sudden affections of the mind,

shew

ſhew likewiſe that, when excited with judgment and addreſs, they may be employed to the moſt ſalutary purpoſes. They cauſe wonderful revolutions, and will remove, for a ſeaſon at leaſt, the moſt painful bodily affections. I have ſeen an intermittent cured by a fright, and one recovered by it from a mania. Two patients of whom I almoſt deſpaired, were at once freed from tedious, obſtinate diarrhœas, by accidents cauſing fear and concern. In times of public danger and confuſion, of perſonal or family diſtreſs, many have been rouſed, or ſomehow recovered, from great and habitual ailments, that could not be overcome by other methods. Whatever it is owing to, whether to the change of air, the ſickneſs and high exerciſe, dread of danger, or amuſement, giving a different turn to the mind or ſpirits, this is certain, that the ſick ſoon find an alleviation of their diſtemper at ſea, the ſymptoms entirely, or in a great meaſure ceaſing.

Another and very plausible objection against sailing is that the weak, sickly, and delicate, are not able to undergo the hardships of a sea life.

Prepossessed at first as much as others, I was long deterred by the same prejudice from advising to sail in particular cases; and might still have continued so, had not repeated experience fully satisfied me, that people under great debility, will bear this exercise with ease, when they can bear no other, and be much cheered and strengthened by it. Nay, it is neither useless nor dangerous for the sick to expose themselves with caution to some moderate hardships, such as arise from the weather and the motion of the ship. For they sometimes receive most benefit in the worst seasons and weather. See histories first, fourth, and sixteenth. Besides, it was observed that sailing might be so regulated as to give more or less sickness, or in a great measure to prevent any;

and

and ſeveral, the moſt reduced by their diſtemper, were not ſick at all *.

Going to ſea is ſtill more ſuſpected in a ſpitting of blood; leſt, from the violence of the ſickneſs or exerciſe, the rupture of the veſſel, and conſequently the hemorrhage, ſhould be increaſed, which might render the diſeaſe ſuddenly mortal.

The greateſt danger in this diſeaſe does not proceed from the ſimple rupture of a ſmall blood-veſſel, which, for the moſt part, very ſoon heals of itſelf; nor does ſpitting of blood always proceed from a rupture. Without farther reaſoning upon it, it is enough that vomiting is often practiſed in this formidable appearance, and with advantage. From my own experience of it in the caſe, I have no

* Multum enim virium adjicit hæc navigatio (cymba molli et delicata) et corpora implet. Foreſti *Obſ.* liii. lib. xvi.

Navi autem vehi conducit debilibus, ſi placido navis feratur motu miram alacritatem, perſpiratione aucta, ſolet excitare, famem augere, ingeſtorum digeſtionem promovere. Van Swieten *Comment.* tom. i. p. 34.

 doubt

doubt either as to the safety of going to sea, or the benefit that will accrue from it. I never observed a spitting of blood caused by it, even when the sickness was severe. It seems always to cease on going to sea; but has been known to return on coming ashore.

Sailing is judged still very improper on account of a supposed unwholesomeness in the sea air; it being frequently observed that people in desperate circumstances at sea recover surprisingly, and in a short time, on being carried to land, whence the greater wholesomeness of the air at land is inferred, and the necessity of it in order to a cure.

The same effect is likewise observed on the sick at land going to sea. It is not the pure natural air, but the corruption of it in certain circumstances that occasions worse health and higher maladies at sea than ashore, else the condition of sea-faring men would be very miserable indeed. This is evident from the good effect of the ma-

chines invented to draw out the foul air. By the use of ventilators numerous crews have been preserved in exceeding good health during long voyages. Sailors on board our merchant ships are generally free from the distempers incident to such as live in a more crouded and less cleanly way at sea; particularly from the scurvy, which may be effectually cured any where, by the common specifics, with fresh air and proper diet.

The scurvy is the grand disease of sea-faring people, and is frequently imputed to their living so much in a saline atmosphere; nor has any opinion obtained more universally than that it is the effect of sea salt.

There are many diseases, in their nature quite opposite to the scurvy, that may, with more reason, be attributed to an immoderate use of marine salt; or to its effects on the body externally; such as fevers, inflammation, costiveness, eruptions of various kinds, blotches, rigidity of the solids, and a particular

particular kind of marasmus. But the acid of salt and sea water are familiarly used in the scurvy; the general causes of which are now more certainly known to be bad air, bad diet, especially moisture, when joined to heat or cold, and want of fresh vegetables. Now these are not peculiar to the sea, nor do they every where equally and constantly prevail there; but are accidental, and may be easily prevented or avoided. In camps and garrisons, where the disease often rages in all its malignity, as well as in fleets, those of condition are seldom, or never, to a high degree, affected with it. Better diet and lodging, warmer clothing, and the being less exposed to hard duty, preserve them from it.

The circumstance of trees not growing or not thriving near the sea, has given occasion to conclude that the sea air is unwholesome.

Lord Bacon takes particular notice of the bending of trees on the shore, *maris auras quasi aversantes*; but im-

putes it to the ponderosity of the air, not to any malignant quality in it. The like bending, and a stunted growth, may be observed in trees very remote from all marine influences; for they will not thrive in any exposed situation. In order to raise trees successfully, the soil, air, or extraordinary culture, are not so much to be considered as good shelter; and with this they will grow any where: hence the reason and necessity of planting in clumps, thickets, and forest ways, in our boisterous climate.

It is farther alleged against the wholesomeness of sea air, that the inhabitants of sea coasts are sometimes remarkably subject to the scurvy, rheums, consumption, watery affections, and the like distempers.

However true the observation may be, it respects chiefly those in northern climates, or on a low, bleak, boggy shore, where the air is cold and moist, and liable to fogs and foul exhalations; or too much exposed to piercing

ing winds. By all which the kindly nature of the ſea air, ſo conducive to health, is wholly altered and deſtroyed. Here alſo it is probable the people live much on ſalted or dried fiſh, and other foods of groſſer nouriſhment, and drink bad water; which is highly pernicious, though in a ſlow imperceptible way. Such cauſes will naturally produce ſuch diſeaſes every where. On a moderately elevated, dry, rocky coaſt, expoſed to the warmer points, they ſeldom or never prevail.

To ſupport the notion of malignity in the ſea air, recourſe has been had to certain hurtful effluvia, or a noxious quality in marine ſalt, which, we are told, renders both the ſea air and its waters unwholeſome; and upon this principle the ſea is repreſented as a continual ſource of poiſonous exhalations, and ſalt unfriendly to the human conſtitution.

That ſea ſalt may be uſed in great quantities, without harm, no one in the

the leaſt acquainted with the manner in which the greateſt part of mankind live can be ignorant. The lower kinds of people, who eat moſtly ſalted meats, are remarkably ſtrong, healthy, and prolific. Cattle thrive wonderfully, and are cured of their diſtempers, by feeding in ſalt marſhes. In many places the water of the country is ſo brackiſh that it becomes purgative to ſtrangers; yet the country people who always uſe it, and from cuſtom like it, enjoy good health, and are ſubject to no peculiar ailments from this cauſe. Indeed the conſtant uſe of it in all ages and nations is an unanſwerable argument againſt its unwholeſomeneſs.

While nothing more hurtful concurs therewith, ſalt in common uſe is, for many good purpoſes, not only a ſafe, but a neceſſary principle. The bad effects which it ſometimes occaſions, are not owing to any unwholeſomeneſs in itſelf, but to the abuſe of it in quantity, or in particular conſtitutions.

I ſhall

I ſhall here take notice of a practical obſervation of great uſe to valetudinarians, and ſuch as ſtudiouſly obſerve too ſcrupulous an exactneſs in diet. This is a manifeſt error; and we may add to it the enjoining of habitual low living to young ſubjects, which in many has produced ſingular delicacy, and even premature death. Experience, ſayeth a judicious author, ſhews that thoſe who abſtain from bread, which contains a ſubtle acid; from eating ſalt in their victuals; from acids, pickles and wine; living wholly on inſipid nutrients, are ſubject to continual ailments; and more liable to ſcurvy, coſtiveneſs, colds, rheumatiſm, many chronical diſeaſes, and obſtructions of the bowels, than even thoſe who were accuſtomed to uſe them in exceſs. Salt is the balſam of the body, and not only gives a reliſh to our food, but preſerves the blood and humors from corruption *.

* Hoffman *diſſert. de ſalium morboſorum generatione in corpore humano.*

Whether

Whether sea air be really insalubrious, and disposes to particular distempers, is best known by its usual effects on animal and other bodies; for by these alone can its wholesomeness or unwholesomeness be justly determined. A well chosen situation, near the sea, has not greater advantages in point of pleasure and convenience, than it is found to have in point of health and spirits; so that many of those places that have been the most noted in ancient and in modern times, for the salubrity of their air, are on the sea coasts. Amongst these, besides Stabiæ already mentioned, Croto, Baiæ, and Naples were chiefly distinguished. *Crotone salubrius* was proverbial. Venice, though standing in the sea, and surrounded by it to a considerable distance, is exceeding healthy according to Testi; who farther observes that the effluvia from the waters, though almost stagnant in such a number of canals, is rendered innoxious by a volatile acid spirit arising from the sea.

But the kindly cherishing influence of the sea air is most sensibly perceived in vegetation, which is mightily promoted by southerly winds from the sea, which prevent or remove those evils that are hurtful and destructive to it. On the contrary, south winds from the land frequently produce dreadful maladies, and, in some regions, are considered as the certain cause and presage of unhealthy and mortal seasons.

Aristotle's observation is no less true than obvious, that the inhabitants of marshy countries are of a sleepy disposition, and have a pale aspect; while those who live at sea, are well coloured, though amidst the waters. No where indeed is there to be found more health, activity, or vigour, than among sea-faring people. In all cases wherein I have recommended living at sea, if the disease was not cured by it, the sick always returned with more health, and greatly improved in flesh, strength, and complexion. It has

been only in chronical cases that I have had opportunities of observing the effects of this method: time may perhaps extend its use to acute diseases also *.

* Dr. Cleghorn in his observations on the epidemical diseases in Minorca, speaking of the difficulty of preventing relapses in the tertian fever, says page 212. "I always advised those who were attacked in the beginning of the season to leave the island, if their circumstances would permit, and not to return until the spring: and there are many instances of persons being greatly recovered by the change of air, even in the first two or three days of their being at sea." Dr. Lind likewise observes, that in all hot and unhealthy countries the sea air affords an asylum to the sick; and he gives many instances of mortal epidemics raging at land, while ships crews in harbours were quite free from the disease. Those who left the ships were infected; those who came on board quickly recovered. But the most striking instance of the effects of sea air in fevers, is the malignant epidemic at Naples in 1764, an account of which was communicated to him by Dr. Elliot. This fever raged for a considerable time with such unremitting violence, that of two millions of people, which the kingdom contained, and who mostly crouded to the capital, the state was supposed to have lost one-fifth by it. At length it was happily observed, that the sick who were moved into the hospitals which stood near the sea

recovered much ſooner than thoſe in other places, and that few of them died. Houſes were immediately fitted up hard by the ſea, for the reception of the ſick; and in theſe, even when very full, the progreſs of the contagion was entirely ſtopped. See Lind *on diſeaſes incidental to Europeans in hot climates.*

SUP-

SUPPLEMENT.

WHAT I formerly published, with regard to the use of sea voyages in medicine, was, I thought, sufficient to recommend to the attention of others, a practice which to me appeared of no small importance. But it has been hinted that I might, with great propriety, have enlarged on the matters treated of, in many places, where I have barely mentioned some things, of which an explication would not be unacceptable. I have therefore ventured, in hopes of giving some satisfaction to the reader, by farther illustrating the subject, to throw together a few more considerations relating to it. And I do this with the greater assurance, that I have

been furnished with new and more remarkable instances of the success of sailing, which serve to confirm, though at the same time they render needless, those conjectural reasonings that were sometimes indulged, purely to gratify the inquisitive. The more candid and experienced will judge of these things according to their use and tendency; and though they should not in all points approve of them, will give the well-meant attempt a favourable reception.

Objections have been made to a few things in the philosophical part; but as they do not affect the general argument, a formal answer to them does not seem necessary. Order required that I should set out with some principles. From different authors, as well as my own observation, I collected all those circumstances respecting the air and exercise at sea, that plainly distinguish them from the air and exercise at land. From these, considered in a pure scientific view, it seemed reasonable

reasonable to conclude that sailing and living at sea might be a proper remedy in certain cases. The great point was to evince this from experience, without which, all endeavours to recommend it would be equally vain and impertinent. A pretty large experience of its success, in a variety of cases, has enabled me to do this, to the satisfaction, it is hoped, of every one. Without producing any new ones, the histories already given of cures by sailing are of themselves incontestable proofs of its efficacy; and these not in slight ailments, for which it would have been ridiculous to advise it; but in diseases obstinate in their nature, often mortal, and in which other remedies were of no effect as to a cure.

The greatest experience I have had of sailing has been in consumptions. A consumption is the endemic of Great-Britain; a disease scarce more frequent than fatal, especially to those of the finest spirit, and the most delicate make; who from their frame seem

 destined

destined as early victims to the unrelenting cruelty of a slow, but surely mortal distemper. As I have always had this principally in view, I shall in the present remarks confine myself chiefly to it, and endeavour to shew farther the exact conformity between the remedy and the disease, which may obviate some difficulties, and direct to a more successful application of it.

Life and health consist in the free, equable, uninterrupted circulation of the blood and juices, and in the excretion, in due quantity, of what is superfluous. This supposeth a right constitution of the fluids, and a proper action of the solids. The blood is so constituted, that it acts on the containing vessels as a necessary stimulus, to instigate their motions, and quicken their propelling powers. The vessels again re-acting upon the fluids give them their consistence, as well as a greater degree of motion; and thus these principal agents mutually assist each

each other in the great buſineſs of circulation.

The blood, though a glutinous fluid, eaſily pervades the ſmalleſt veſſels: and in ſuch a ſtate of fluidity it ſhould always be preſerved, in order to maintain a proper degree of vigorous health. It is likewiſe a fluid of a ſaline ſulphureous nature, inflammable when dried. From the uniform mixture of its ſeveral principles, in due proportion, ariſeth that ſoundneſs of the humors which is the true foundation of a healthy ſtate; and whenever it deviates from this juſt proportion on either ſide, there a diſeaſe commences. If the ſaline ſulphureous principles prevail, diſeaſes of the acute, ardent, inflammatory kind enſue. But when, from a deficiency of the more active parts, the blood becomes poor and ſluggiſh, thoſe diſeaſes that depend on a languid motion and obſtruction will be the conſequence. In order to ſupply the defect we endeavour, by a variety of well-known remedies, to

ſtore the blood with warm balſamic ſtrengthening parts; by which the veſſels are excited to greater action, and a briſker circulation is promoted; and we have a proof of their fitneſs in the happy effects which they produce: but theſe effects are more remarkably felt at ſea. If the conſtitution of the blood is ſuch as hath been deſcribed; if there is a conſtant diſcharge by the pores of what is redundant; and if air, under a particular modification, acts with all its qualities on the body, at ſea there will be a continual acceſſion to the blood of parts ſimilar to thoſe of greateſt energy in its compoſition; for theſe abound in the ſea air; the vigorating power of which muſt be communicated to all the fluids, and the whole ſyſtem will ſoon partake of it. Without admitting a conjecture of this kind, we ſhall be at a loſs to account for the ſudden return of appetite, ſpirits, fleſh, ſtrength; and indeed of laſting health, commonly obſerved on living at ſea, though only for a ſhort while.

while. But leaving these as matters of a speculative nature, yet proper to be taken notice of in a history of the air at sea, one thing is obvious, that this air being, in its general constitution, warmer in winter, and agreeably ventilated in summer, it must therefore, in every season, as well as in certain diseases, be exceeding safe and healthful.

A consumption is more generally fatal than any other malady, and yet more generally neglected, at a time when a cure may be attempted with advantage. The slow unsuspected manner in which it commonly makes its attack, seldom gives immediate apprehension of danger; and being attended with little pain or sickness, still flattering, and still deceiving, the hopes of recovery are often entertained through all its lingering stages. A spitting of blood sometimes gives the alarm, and an early warning of its approach. This appearance has been always, and justly dreaded; and, except

cept when it happens in the way of mere tranſudation, or is brought on by accident, in habits otherwiſe ſound, is uſually the forerunner of a conſumption, or ſhews a ſtrong tendency to it.

It was alleged that tumefied glands, by compreſſing the blood-veſſels, moſt frequently cauſed their rupture; which, in moſt caſes, may be preſumed to happen long before the diſeaſe puts on the formal type of a conſumption; even though there ſhould be no certain ſigns that tubercles are yet formed. Theſe may exiſt a great while in the lungs, without cauſing any impediment to their motion, or greatly affecting the health. Such a length of time ſometimes intervenes between a ſpitting of blood and the certain appearances of a conſumption, that we cannot imagine ulceration to be, ſo frequently as it is thought, the conſequence of a ruptured blood-veſſel not agglutinating; ſeeing it would diſcover itſelf much

ſooner by the circumſtances of cough, fever, and purulent expectoration: for if the rupture does not immediately heal, matter will ſoon be formed. A Baker, of a thin habit, ſmooth ſkin, and fine complexion, in the beginning of ſummer, threw up a good deal of florid frothy blood. The hemorrhage ſtopped. By proper diet and management he recovered; and continued ſeemingly in perfect health for ſome months. In autumn a cough came on, attended with a fever; he waſted, and at length, without any return of the hemorrhage, he ſpit matter and died. The ſame progreſs may be often obſerved. It was neceſſary to take particular notice of it here, as the cauſe of a conſumption is moſt commonly to be ſought for ſomewhere elſe than in the ulceration of a ruptured veſſel; and in a conſumption the circumſtance of tubercles is always to be kept in view. Though they may not always exiſt at its firſt appearance, yet we may be ſure they are about to

form;

form; for upon diſſection they are always found in conſumptive perſons.

A frequent dry cough, attended with fever, ſweating, and waſting, gives juſt ſuſpicion of tubercles; and perhaps ſome ſmall attempts may be made, often by very inadequate means to reſolve the obſtruction, and prevent ſuppuration: here the diagnoſtic is plain. But on a ſpitting of blood, ulceration being ſuppoſed, in ſome manner the conſequence of the hemorrhage, it is believed that every indication is fully ſatisfied, when we endeavour to heal the ruptured part, and provide againſt any farther hemorrhage; and theſe views engroſs our attention ſo much, that the main point, to wit the reſolution of the tubercles, is overlooked, or perhaps is never thought of. Beſides, the bleeding and cooling methods practiſed in the hemorrhage, for a time ſuſpend the growth of the tubercles, ſo that their exiſtence may not be greatly apprehended. We are not, however, to

conclude

conclude that the danger is over, even when there has been no appearance of blood for a conſiderable time. The latent obſtruction from which danger chiefly ariſeth, increaſing by ſlow degrees into a confirmed ſtate, terminates in an abſceſs, and ſhews itſelf at laſt the genuine, though leaſt ſuſpected, cauſe of a mortal purulent conſumption.

In no claſs of diſeaſes hath a certain ſet of remedies been more indiſcriminately uſed than in a cough and conſumption. A cough proceeds from various cauſes, which require very different methods of cure. A conſumption is either glandular, pituitous, or produced by a catarrh; and the ſame treatment would but ill agree with them all. It will in many caſes admit of a doubt whether a practice, which is recommended indeed, and which ſome go into, is always the moſt proper and juſtifiable; I mean the uſe of warm balſamics in a ſpitting of blood, or after it. They are directed with a

view to consolidate, and upon a presumption that suppuration always does, or may succeed the rupture of a vessel, though it happens perhaps but rarely. The simple rupture of a blood-vessel emptying itself into the branches of the windpipe, for the most part soon agglutinates, if a due motion and temperature of the fluids be preserved; and the more readily, as the mild mucus which lines the lungs will answer the purpose of a kindly healing application. But when the blood is shed into the cellular interstices of the lungs, we have a different distemper to deal with; different indications arise; and a particular method is necessary to discharge the extravasated coagulated blood, oppose its putrefaction, and dispose the part that may be corrupted to heal. In this case the patient spits matter very soon after the hemorrhage; and from this circumstance the notion that suppuration generally happens in the ruptured part, seems to be derived, as well as the practice that

takes

takes place in conſequence of it. Pus is the natural effect of inflammation, when advanced to a certain height. Now, if the hotter ſtimulating balſams are exhibited in ſuch quantities as to produce any effect at all, they muſt excite a proportionable degree of fever, which will increaſe the inflammation; and what was intended to prevent purulence, may rather, in the iſſue, diſpoſe to it. It is not meant however, by any thing that has been ſaid, abſolutely to decry all remedies of this kind, but only to caution againſt a too general and precipitate uſe of them. The end chiefly propoſed is ſo often obtained without them, that I am inclined to think they are ſeldom requiſite. Indeed they ſhould be very plainly indicated before they are admitted into uſe.

Styptics, though frequently met with in preſcription, have been likewiſe condemned, as being apt to cauſe heat, hardneſs, and inflammation, with a general conſtriction, or in-

creaſed

creaſed action of all the veſſels, and ſo may endanger ſuppuration.

But the dread of an ulcer from a hemorrhage of the lungs, in a great meaſure vaniſhes, when we reflect that ſpitting of blood may proceed from other cauſes beſides the rupture of a veſſel. Let us imagine a tubercle compreſſing a ſmall artery at its extremity, a diſtenſion of its ſides muſt enſue; the mouths of the exhaling branches will of conſequence be more dilated; red globules, which naturally they do not receive, will now be admitted into them; and the blood, obſtructed in its former route, is forced off into the air-veſſels. Thus, without any ſolution of continuity, a hemorrhage is brought on, by tranſudation only. Nor is it of importance to ſtop it ſuddenly, unleſs it be exceſſive, or there be plain ſigns of plethora, ſizy blood, or preternatural heat. By this means nature endeavours to diſburden herſelf of any ſmall redundancy that may occaſion greater impulſe on the

obſtructed

obstructed glands; or accumulation in the extreme vessels by compression; and when the excess is removed the hemorrhage ceases of itself. Of all this daily experience affords examples in numbers habitually subject to spitting of blood from this cause. A great deal therefore of what is done, with a view to agglutinate or consolidate, will appear to be improper or ill directed, and in many cases altogether unnecessary. The rupture of a vessel is frequently supposed to have been cured, when in reality there was none.

The danger from a spitting of blood, it was said, is not over, even though all appearance of blood may have ceased for a considerable time. It was observed also, that growing tubercles, compressing the small arteries, are the most frequent causes of a hemorrhage. The blood may likewise be in a fizy inflammatory state, or disposed to febrile effervescence; and sometimes the vessels may be only weak. With regard to all these, I would propose

 that,

that, after the hemorrhage, crude mercury ſhould be given in ſmall quantities, to reſolve the obſtruction, and correct the vice of the fluids, whether inflammatory or acrimonious; in both which ſtates it is well known to be of ſingular uſe. Three or four grains every night, in any form that is moſt agreeable, may be ſufficient; and if it ſhould produce an ill taſte in the mouth, its effect will be the more certain. By this means a powerful remedy is directed againſt the very cauſe of the hemorrhage, namely the tubercles; which would ſooner or later cauſe death, with or without any hemorrhage. Spitting of blood in this caſe is merely accidental, and ſometimes may, but much oftner does not, happen. Should a mercurial remedy be objected to, in a tender ſtate of the veſſels, experience has not yet ſhewn that any danger attends the uſe of it; and I have often tried it. When the obſtruction is thought to be in a good meaſure reſolved, a decoction of the

the bark, or a simple infusion of it in cold water, may be used to strengthen the vessels, and extinguish the remains of feverish heat, that might endanger a relapse. The same rules and cautions that are judged necessary upon recovery from a consumption, ought to be observed here, with no less care.

To determine precisely, whether a consumption, consequent upon a spitting of blood, proceeds from the rupture of a vessel not healing, or from blood corrupting in the smaller branches of the windpipe, or from the suppuration of tubercles, is sometimes difficult, and in the present view quite unnecessary. For in any case I shall believe it always right, and most conducive to health and life, to go to sea immediately; as no method that has occurred to me seems, in any respect, to promise equal security. I had a notable instance of its success in the case of a young gentleman. He was of a slender make, small stature, and of the most delicate constitution that

can be imagined; ſo that it was with the utmoſt difficulty he was reared up to manhood. In winter he catched cold; a ſevere cough came on, with night-ſweats, and great loſs of fleſh, ſtrength, and appetite. No fever could be diſcovered by the pulſe, which was rather flaccid and ſlow, though his tongue was very white. After ſome time the cough went off almoſt entirely, chiefly by means of the mercurial pill, which gave a ſenſible turn to the diſeaſe, and he recovered to a good degree, but continued all the ſpring pale, languid, and emaciated. Perhaps the pill was not long enough continued, or ought to have been repeated. In April, while drinking milk in the country, he twice ſpit blood, in conſiderable quantity, from which time he grew worſe, and became ſo weak that, in walking, the ſmalleſt aſcent was too much for him. In June he went to ſea, where his appetite became in a manner voracious. After ſome days the ſhip put into harbour,

and he lived one week aſhore. A few days more at ſea carried him to the end of his voyage out. He lived again aſhore for ſome weeks, in a country place; waſhed every day in the tide; drank milk, and rode frequently. The ſhip was only three or four days in coming home. By thus ſailing, and living on ſhore, interchangeably, but ſtill in the ſea air, a ſurpriſing alteration was made upon him for the better. He returned without any complaint; and, having recruited his fleſh and ſpirits, had now a ſtrong hale look, with a ruddy complexion, and could walk ſome miles with eaſe; though, while abſent, he had uſed much more freedom in eating, and even in drinking, than was conſiſtent with his natural delicacy, or the doubtful condition of his lungs. Being now too confident of his good ſtate of health, which continued a full year, and impatient of reſtraint, he indulged himſelf in every exceſs, and relapſed. He would fain have repeated his

voyage to ſea; but the quick progreſs of his diſeaſe rendered a cure by that or any other remedy quite impoſſible; and in a ſhort time he died.

The reſolving power of ſea air can hardly be doubted, when we conſider the peculiar compoſition of ſea water, ſaturated with a variety of ſubſtances of a volatile penetrating nature. Impregnated with theſe, the vapour becomes an active application; the power of which is ſtill farther improved by its moiſture and temperate warmth. The efficacy of ſea water in reſolving glandular tumors, when externally uſed, is ſufficiently known. Sea air therefore, partaking of the ſame virtues, muſt be equally ſuitable to the lungs in the ſame intention; and where it can be procured, and a ſea life is not complied with, ought always to be preferred to common air, as better adapted to the nature of the diſeaſe, the variety of its ſymptoms, and the morbid ſtate of the part affected.

Willing to know what breathing sea air would do without failing, I made trial of living near the sea, and with the desired effect; unless you will attribute the success to other means that were used in conjunction with it. A gentleman, naturally delicate, was, for a good while, subject to coughs. His wife died in the winter, of a pulmonary disorder, but without any signs of purulence. His cough increasing, he was deeply impressed with a notion of his having been infected by his wife. This fear and concern for his loss exceedingly depressed his spirits; which, together with the continuance of his cough, during the winter and spring, gave apprehensions of danger. Proper remedies were not neglected; but I depended on a warmer season for his recovery: and accordingly, as the summer approached, he grew somewhat better. His affairs would not permit a long journey, or a voyage to sea. I therefore advised sea air, and the use of milk. Every morning

morning he rode out fasting three or four miles, close by the sea, drank asses milk, and, after spending the day in the country, and drinking some more milk in the evening, returned the same way. The sea air, he said, was highly refreshing to him; he got a keen appetite and great spirits, and always finished his ride with a strong taste of salt from the spray. Having spent a month or more in this manner, the cough left him, and he regained his former health; to confirm which, a course of light steel water was advised.

Another affection in which the vapour and spray of the sea, on account of their moistening resolving qualities, may be of singular benefit, is callosity of the lungs. Of this we have instances in the second and fourth histories of the preceding treatise; where, if I do not err in the diagnostic, a constant quick laborious breathing characterised the distemper. When the numerous small glands of the membrane

which

which lines the air-veſſels are obſtruct-ed, from cold inflammation, noxious fumes and exhalations, or any other cauſe, and continue long in this ſtate, they acquire a ſcirrhous diſpoſition; and the air-veſſels, hardened through more or leſs of their extent, become dry, ſtiff, and unyielding. This muſt evidently affect reſpiration much more and ſooner than even the caſe of tuber-cles. For theſe at firſt, lying only ſcat-tered here and there in the ſpungy ſubſtance of the lungs, obſtruct their motion but very little, and conſequent-ly cauſe no great difficulty of breath-ing. The effect of ſailing, in both caſes, far ſurpaſſed any expectations I had formed of it; and, in ſuch a de-gree of the diſtemper, anſwered the in-tention more effectually, and more ſpeedily, than I imagine any other remedy could have done. To this af-fection ſome kinds of aſthma ſeem to have a reſemblance.

The chief intentions in a conſump-tion, as they reſpect the lungs particu-

larly,

larly, are to resolve the hardnesses, and heal the ulcers. Dissections of those that die consumptive shew the lungs filled with tubercles of various sizes, and in various states; their whole substance being sometimes nothing but a confused mass of glandular swellings, abscesses, and ulcerations. By these circumstances we distinguish the several periods and symptoms of the disease, in the course of its progress; which, being thus complicated, afford a very complex indication of the method of a cure. If we may judge from the modes of prescription, and the rules of systems, the general current of modern practice seems wholly directed to the cleansing of the ulcers, the sweetening of the juices, and the alleviation of the symptoms. The resolution of the obstructions, which still continue forming to the last, is not attended to in the advanced stages. And yet it is obvious that this intention ought to be no less earnestly pursued now, than in the state of mere tubercles,

tubercles, without ulceration. For what ground do we gain, while busied in deterging and healing the glands already ulcerated, if we suffer the growing obstructions daily to form new abscesses, by which the ulcerations are continually multiplied, till the lungs come to be intirely occupied by them? Hence constantly spring new sources of ulceration, an increase of purulence, and greater consumption, notwithstanding all our endeavours.

A similar distemper, the *evil*, may afford us some useful hints for the management of a consumption. Surely it could not be reckoned a proper treatment of the evil to employ all our care and pains in curing the ulcers, without regarding the obstructions; and so leave the tumors still to increase, till they also apostemate, and become ulcers. This applies so exactly to what we know of the situation of the lungs in a consumption, that the idea ought to be carefully preserved and recurred to on every occasion,

ſion, if we would rightly underſtand the diſeaſe, and attempt to cure it with any proſpect of ſucceſs. A reſolvent courſe is equally adapted to, and neceſſary in, the ſtate both of tubercles and ulceration.

Indeed, if we reflect ever ſo little, we ſhall find that the reſolution of obſtructions in every ſtage of a conſumption, while any hopes remain, is ſo clearly indicated, and of ſo much importance, that, without a conſtant attention to it, the diſeaſe will continually gain ground. By what means other than a proper reſolutive method, external or internal, is it poſſible to remove the different indurations to which the lungs are liable; ſuch as tubercles, calloſity of the air-veſſels, and the hardneſs and tumefaction of ulcers? And how is a cure to be affected, but by firſt removing theſe? The main obſtacle to a cure, both here and in a ſcrofula, ariſes from the hardneſſes peculiar to the malady; which being once ſubdued, the great ſource of

purulence, the ſuppuration of the tubercles, is cut off; at the ſame time the ulcers are reduced to a milder ſtate; and Nature, with little aſſiſtance, will ſoon completely heal them.

What are the proper deobſtruents in the ulcerated ſtate of a glandular conſumption, authors do not at all inform us; and from common practice we can learn as little. In this ſtage the ulcers ſeem to be the only object; ſo that inſtead of deobſtruents, we are directed to uſe lubricants, detergents, healing remedies, and what are called febrifuges; but with what propriety or ſucceſs, the event, ſo ſeldom proſperous, abundantly teſtifies. A reſolvent power has never been attributed to them, nor are they poſſeſſed of any; and for this reaſon they are found to be of ſo little ſervice.

However, conſidering the delicate ſtate of the lungs, and of the whole body, and the many contra-indicating ſymptoms in a conſumption, forcible deobſtruents are very cautiouſly, or

rather

rather not at all to be used internally; and those of small efficacy are unavailing. From the success of crude mercury in a beginning phthisis, one is led to imagine that the same effects should follow in the after stage; which nevertheless does not hold good in fact. There is a wide difference of circumstances at different periods. In the state of mere tubercles, we have to do with obstructions only, and a simple hectic depending thereon; nor can the juices be yet greatly vitiated. Here the remedy has succeeded; and timely administered, upon the appearance of a suspicious cough, will often give an early check to the disease, and in many instances will perhaps cure it. But when any of the glands suppurate, the malady becomes strangely complicated. A fever from purulence more especially prevails, with colliquation, both which are increased by mercury; and upon trial it is observed to hasten a fatal issue. After an impartial examination of every thing that

that hath any claim to be regarded in the present intention, the vapour and spray of the sea, externally applied, appear to be, in all respects, preferable, and free from those objections to which almost every thing else is liable. Without any danger, or uneasiness, from being applied to the lungs immediately, they both resolve obstructions, and dry the ulcers; while, by their alterative powers, the habit is greatly mended. Such, at least, was the opinion of physicians in former times, who considered sailing as a cure for the consumptive; and experience assents to it. I shall presume to add that the sea vapour is antiseptic, and will correct the purulent disposition of the matter in the lungs, so as to prevent the violence of a putrid fever, on its being resorbed.

Without doubt the difficulty of conveying remedies of a balsamic nature directly into the lungs, first suggested the internal use of them; by which it was supposed that the blood being impregnated

pregnated therewith would, in the course of circulation, communicate all their virtues to the part affected, and answer the purposes both of deterging and healing them. But if experience too fatally proves that, when thus administered, they rarely answer the intention, there is reason to suspect that they are either improper in themselves, or improperly applied, or not of adequate virtues.

To throw greater light upon this matter, let us again observe what is the practice in a scrofula. It would argue little knowledge, or little attention, to treat scrofulous ulcers, to which we can have access by the hand, with such things as long use hath discovered to be altogether fit and effectual in ordinary ulcers. Applications of a particular nature and operation, even those of the saline and aqueous kind, are found to do most good here. Therefore sea water, urine, and some medicated waters of a nitro-sulphureous nature, are often, with much benefit,

nefit, made choice of. While these powerfully deterge they are at the same time resolvent; and, by their drying stimulating qualities, prevent an undue relaxation of the fleshy fibres, from which ariseth that luxuriancy, or spunginess, which is so frequently the chief impediment to a cure. As experience leads us thus far, we naturally infer the fitness and necessity of a similar remedy, properly directed to the lungs, when similarly affected; and such a remedy will be found, with every advantage, in the spray and vapour at sea. When all this is applied to a consumption, and the use of detergent balsamics in that disease, perhaps we shall not discern such a propriety in them as hath always been supposed. Indeed practice shews that their use is very much circumscribed; altogether, it would seem, to common imposthumes, and ulceration from tubercles of a milder or less indurated kind. If from a more judicious application of these

and ſome other remedies, on which the greateſt ſtreſs is laid in a conſumption, any have been ſo happy as to aſſure themſelves of their good effects in general, a full relation of the circumſtances and ſucceſs would be a valuable addition to our ſtock of medical knowledge and experience.

But in every neceſſary intention remedies may, by inſpiration, be conveyed in ſufficient quantities, immediately to the lungs themſelves, in the form of vapour or fume; unaltered by any change they might undergo in the courſe of circulation; and without exciting thoſe hurtful commotions, which, if there be any tendency to fever and inflammation, will more or leſs attend the internal uſe of them.

The method of fumigation was early introduced into medicine; and it is matter of regret that it hath not more generally obtained. Great judgment in the choice, and much caution in the application of remedies in this way are certainly requiſite, to render them

them at once safe, easy, and of due efficacy to answer the several intentions of cure, according to the different conditions of the ulcers. Decoctions of the healing plants, the detergent balsams, drying gums, antiseptics, sulphur, and orpiment, are all recommended, and have at times been employed. This last, as it contains a very acid salt, and a small portion of mercury, is most effectual, no doubt, to remove the foulness, resolve the hardness, and promote a laudable digestion of the ulcers; and has been successfully applied for these purposes.

But though we are not without instances of cures performed by this sort of remedy, sufficient to convince us of its great power, yet these will by no means warrant the free use of it in a general practice, unless a way could be found to curb its violence, and render its effects more mild and safe. Even in its most corrected state, there will often be found bodies so weak or so

wasted, or under such peculiar circumstances, that they cannot bear such a vehement operation as this, in some cases, appears to have had *.

The more moderate detersives are the natural balsams and their productions. From what has been said concerning

* Quidam Catalaunus phthisicus factus est. Per triennium excreato sanguine simul cum pure, tantus eum marcor obsessit ut ossa (uti vulgo dicitur) cutim transmiserent. Tussis eum adeo inquietabat ut vel modicum somnum capere haud potis esset, præ copia purulentæ materiæ in gutture ferventis, et liberam respirationem impedientis. Cum vero vitæ suæ tæderet, fumum trochiscorum ex auripigmento cœpit haurire. Ille vero se nolle in posterum iis uti protestatus est, quia se respiratione privatum iri persuaserat, si iterum id auxilii genus tentaret. Ego autem instare non destiti, donec iterum trochiscos ut paulo ante experiretur. Nocte sequenti, post haustum vaporem, tantus eum rigor invasit, ut non solum lectus, sed etiam tabulatum cubiculi, quodam veluti terræ motu concuti videretur. Ego vero deprehenso undoso pulsu, cum vitalium virium robore, prædixi brevi futurum ut copioso difflueret sudore, qui tantus quidem paulo post emanavit ut culcitra et lintea tota permaduerint proinde ac si in fluvium demersa fuissent; exinde somnus et quies, nulla tussis, nullus excreatus, in summa sanitate frui illi licuit plus quindecim abhinc annis. *Obs. incerti auctoris apud Riverium.*

their

their internal uſe, a conjecture may be formed as to the propriety of employing them in fumigation. Wherever they can be ſafely adminiſtered internally, there they may be uſeful externally; and, on this principle, they are proper only in milder ſuppurations, where the knots or tumors approach ſo much to the nature of a ſimple phlegmon that they may be eaſily diſſolved into laudable pus. But though here, as well as in ſome other caſes of purulence, which do not belong to this place, they are allowed to be a fit application, yet in general they are not ſo highly beneficial, unleſs aided, and indeed qualified, by other matters of different parts and character. For when the glands are much indurated, or of a ſcirrhous diſpoſition, the hotter balſams, if we may judge from their effects in an ulcerated external ſcrofula, cannot be reckoned proper digeſtives; as in ſuch hardneſſes they have a tendency to raiſe heat, to check the generation of matter, to

inflame, and consequently indurate more. Besides, in the form of a dry fume, they seem to be ill suited to the diseased state of the lungs, under the various circumstances of glandular obstruction, inflammation, abscess, and ulceration, from which many different indications arise, to each of which every application should, if possible, have a due respect.

If a quantity of tar, or turpentine, or its oil, or balsam of sulphur made with oil of turpentine, be put upon hot water, dropping into it, from time to time, a quantity of spirit of salt, a balsamic, saline, aqueous vapour will arise; cooling, resolvent, antiseptic and detergent; in short, resembling in its several virtues the marine vapour, as much as any such composition can do. This is easily procured every where; and an earthen vessel of a convenient size, with a large belly and a strait mouth, is all the apparatus required. In milder suppurations I have used a vapour of this kind, when there

was

was an ill-conditioned discharge, which soon acquired a better consistence and colour; or the matter was gradually dried up. A mineral fume too, when expedient, might, by an easy contrivance, be communicated along with the vapour. The obtunding quality of the former would restrain the too great activity of the latter, while the latter gives energy to the former; and, thus combined, the operation of both together is rendered more safe and more effectual. In this we should act conformably to the practice of surgeons, who, to their other applications, add a portion of a mercurial remedy, in the foul, hard, undigested state of ulcers. And that the ulcers of the lungs are in such a state we may readily conclude, when the matter spit up is too gross, thin, scanty, or ill coloured. But the propriety and success of such an united fume and vapour is not yet vouched by experience.

With a view to establish a more certain method of cure, it might be of use to consider likewise the several internal remedies appropriated to a scrofula, in their virtues, correspondence, and effects. To enter into a critical examination of these, as applicable in a consumption, and compare them with those now used, would be an undertaking, however pertinent, too much beyond the limits here prescribed. The transition in such a comparison is so easy, that every one will be able, from his own reflection, to form a proper judgment. If there be a plain analogy between the diseases, the method of cure, one would think, should also be analogous; so far at least as the nature and situation of the part affected, and the constitution of the patient, will allow.

A consumption, in the view all along given of it, and according to the general acceptation of the term, supposeth an ulcer of the lungs. Sometimes indeed it is observed to make a formi-

dable

dable progreſs, even into the colliquative ſtate, before a ſuppuration is effected, or any pus appears by expectoration; and, if this be not adverted to, a wrong diagnoſtic may be formed, and poſſibly a wrong intention purſued. When the morbid glands are of a ſcirrhous hardneſs, which frequently happens, they ſuppurate very ſlowly, if at all. If they be really ſuppurated, and the abſceſſes lie remote from the larger branches of the windpipe, the force of inſpiration may not be ſufficient to break them, as the obſtructed lungs muſt be very weakly inflated. The inveſting membrane alſo is, in ſome caſes, ſo thick and ſtrong, as not to be eaſily broken by the preſſure of the included matter, eſpecially when it is of a very groſs and inactive kind. For theſe reaſons an ulcer may never be produced, or not till the diſeaſe is too far advanced to admit of a cure. To treat it, at ſuch a time, with remedies reſpecting the lungs as actually ulcerated, while the part is

yet in the ſtate of abſceſs, or perhaps of tubercles only, will, to every one but moderately acquainted with medicine, appear equally injudicious and hurtful. In this caſe the ſick labour under conſtant fever, ſevere cough, moſtly dry, and all the ſymptoms of colliquation, from a reſorption of matter, or the impaired action of the lungs. Nature muſt now be prudently aſſiſted, as ſafety depends upon evacuating the matter as ſoon as the ſymptoms ſhew it to be formed. The rupture therefore of the abſceſſes is by all fit methods to be promoted; and what method more likely to promote it, with leſs pain and fatigue to the ſick, or greater proſpect of relief, than the motion and vomiting which attend failing. See hiſtory eighteenth.

In ſundry parts of the preceding eſſay it was juſt obſerved, that ſeveral affections have much the appearance of a conſumption, though really of a different nature, as the event hath frequently

frequently shewn. To illustrate this more particularly, it may not be improper to produce here a few instances of such distempers, under various appearances, and arising from different causes.

From what was said in chapter fifth, it is plain that a common imposthume of the lungs does not fall under the denomination of a consumption. This malady, contrary to what happens in a consumption, is generally cured by a simple method, and very few remedies. But, by a concurrence of unfavourable causes, it may sometimes degenerate into an incurable phthisis; the more speedily fatal as the ulceration is larger. And when the continuance of fever, an ill-conditioned matter, and other corresponding circumstances, shew a bad state of the ulcer, and of the juices; crude mercury, and small bleedings, will be of the greatest use to subdue the fever and inflammation, correct the vice of the fluids, resolve hardnesses, and dispose the part

to be healed. Here, if the disease be not advanced into the colliquative state, crude mercury is safe, which it is not in a true glandular ulceration. See page 110.

After a severe catarrh, or a bad cold, a thick, yellow, ill-tasted pus like matter, is often expectorated in great quantities. The sick cough a good deal, lose their appetite, languish, and waste, perhaps with a little slow fever. But this matter is only the usual secretion, which was thin and acrid at first, but has now, by undergoing a particular digestion, acquired a better consistence, and, for the most part, is a favourable sign. Vomits, the detergent healing balsams and drying gums, will dissipate the superfluous lymph, and scour, as well as strengthen, the overcharged glands of the membrane which lines the windpipe, and which seems to be the principal seat of the disorder. It is not difficult to cure, when taken in time, and some imagine that in curing it they have cured

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a purulent consumption; but it is a quite different malady. Neglected however, or ill-treated, and falling in with a bad habit or season, the membrane grows spungy and inflamed; the excretory ducts of the glands become foul and eroded; and the disease extending itself, may, either in this form, or attended with ulceration, mortally affect the lungs themselves.

From large discharges of pus, likewise, high phthisical symptoms are sometimes produced, as was the case of a young man, occasioned by a stroke on the side of his belly. The consequence was a tumor of the whole side; which, gradually increasing for above five years, at last became troublesome. An opening was made through the teguments and muscles. A vast quantity, first of a very fetid sanies, afterwards of pus, came away. The sinus received a probe of fifteen or sixteen inches. Though the patient was before healthy and strong, and made uneasy only by the weight of the tumor,

especially in riding, a constant fever now came on, with severe cough, looseness, and profuse sweating. Under these he struggled three months in winter, as if in the last stage of a consumption; but there was no purulent spitting. The sinus began now to contract, and the quantity of the discharge from it to decrease; in proportion to which the other symptoms abated, and he recovered.

A healthy strong woman was taken with a smart fever, great heat, and incessant cough, which brought up only a thin frothy matter. She had a highly inflamed look, and sweated profusely. All the symptoms indeed were in excess, and seemed to threaten a speedy consumption. Bleeding, anodynes, and the mineral acids carried them off. This, it would appear, was no more than a simple heat, or effervescence of the blood, affecting more particularly the lungs, as it naturally would do. For the whole mass of blood is thrown out hot from the right

right ventricle of the heart, immediately into the lungs, where it circulates with increased velocity; and so frequently occasions a return or increase of cough, in the paroxysms and exacerbations of the fever. The success of the method of cure used in the present case, strengthens our conjecture as to the cause.

The Lady first-mentioned, under the article Consumption, in chapter fifth, as having an abscess of the lungs, began many years after, without any great cough, to spit a short, thinnish kind of matter, not altogether free of taste and smell. There was a small quickness of the pulse, with heat and wasting. The disorder had continued a good while. She used tar pills, with other detergents, and the steam of tar dropped upon hot water. By these, and proper decoctions, and the bark, the symptoms were removed. Was this only an affection of the membrane which lines the windpipe, and its larger branches? for she had no labour

in

in breathing: Or was it a ſuppuration of the part where the abſceſs had formerly been?

A young lady, inclining to be fat, had a ſhort, dry cough, which continued all the ſpring and ſummer, and became uneaſy to her in the night. She loſt her fleſh and appetite, had a languid look, and ſometimes breathed quick. There was no fever however, nor ſweating. The popular remedies for a cough, adviſed by every body, proving of no uſe, ſomething more regular was attempted. A little blood being taken away, it appeared thin and bluiſh at top. After a vomit ſhe was bliſtered, took ſquill pills, and rode, but would not ſubmit to iſſues. The cough continued. In autumn ſhe drank a light ſteel water, which did her ſo much good, that for ſome time ſhe was pretty well. The cough increaſing again, and the winter coming on, gave apprehenſions of danger. She uſed the mercurial pill; her complaint went off and never returned, ſo

as

as to be any injury to her health. It was suspected that the glands about the head of the windpipe were in some manner affected; for at times she has still something of the same kind of cough.

A lady of small stature, and slender make, subject to the rheumatism, was advised at a noted spaw to bathe, and sweat after bathing; which greatly fatigued and exhausted her. In a few weeks she lost her voice; a frequent cough came on, with constant quick pulse, sweating, and a discharge of phlegm, mixed with small dots of greenish matter. She also lost the use of her lower extremities. After a long time, a cure was effected by means of issues, strengtheners, open air, exercise, and at last the cold bath.

These and the like instances show how difficult it may sometimes be to ascertain the distemper; and that we should not too hastily pronounce some illnesses to be a consumption; which, though resembling it in appearance,

are different in their nature, and rarely, but from accident or an improper treatment, terminate in it.

Whether or no a consumption be curable need hardly be disputed, seeing a little observation will easily reconcile the differing sentiments on this head. That some do recover there is no doubt; and, if I may do it without being thought too sanguine, I would venture to say farther, that numbers might be preserved, or at least enabled to live much longer than they do. Not indeed by means of the remedies most commonly used: daily experience gives too certain and melancholy proofs of their inefficacy: but by such, and such only perhaps, as, through a groundless timidity, neglect, or an useless refinement in practice, are suspected by many, despised by others, and so suffered to fall into disuse; whilst remedies of no real virtues, if not hurtful, have been extravagantly multiplied. All who have attended to it must know that

 many

many of these, far from affording the expected relief, commonly load the stomach, destroy the appetite, supply fresh matter of fever, and either augment or suppress the morbid discharges, sweat, looseness, and expectoration; which, preposterously checked or promoted, increase the waste and disorder, and either way render the disease more desperate.

When the lungs become corrupted, relief and safety are chiefly to be obtained from a right use of the non-naturals. The common people, who have little attendance, less medicine, and barely the means of a scanty subsistence, are not observed to suffer more, or die sooner; nay they often suffer less, and live longer, than those who enjoy all the helps that art or affluence can procure. Almost every attempt to preserve the lives of the consumptive by the usual means, serves only to convince us of their inability to do it. May it not then, without presumption, be asked, to what pur-

pose such a multitude of remedies? Will it be said, that at least they alleviate the symptoms? Experience contradicts this, and proves, on the contrary, that, in much the greatest number, they are not even palliatives. Conscious of their small importance, the most eminent in practice have, in a great measure, laid them aside; and the consumptive are now intreated not to put any confidence in them.

If this be a just representation of the case in a consumption, every one who duly considers it, and is not entirely led away by custom and prejudice, must in time be convinced that a reformation of the practice in this disease is absolutely necessary. And if any alteration be supposed to take place, the practice derived from antiquity, which gave occasion to the preceding treatise and to these remarks, seems in a particular manner to deserve our attention; not merely because it is derived from antiquity, a reason too partial to be of weight in this,

this matter; but on account of the many experimental proofs which we have had of its efficacy. Should it in future trials be found unequal to the intention, the great knowledge, industry, and sagacity of the present age will be able, it is hoped, either to improve the methods now in use into greater certainty, or to devise others that may be relied on and recommended with greater assurance of success. However, when the utmost has been done, a consumption will still remain a very fatal malady. The obstinate nature of the disease, which, it may be remembered, is of a scrofulous nature, and its being seated in a bowel delicately framed, and immediately necessary to life, forbid us to entertain any confident hopes of general success by any means whatever. Yet, as the disease exists in different degrees, in habits differently constituted, and is variously conditioned, we are in certain favourable circumstances encouraged to attempt a cure, and not al-

ways without ſome reaſonable hopes of ſucceeding. If a few only of the many thouſands who muſt otherwiſe periſh, can be reſcued from their fate, or even obtain a reprieve of any duration, this diſeaſe will no longer be reckoned, at leaſt ſo juſtly as it has been, the reproach of the medical art.

From the doctrines all along laid down, the many facts that have been brought in ſupport of them, and a general want of ſucceſs, it would appear that there muſt be ſome material defects in our preſent practice, particularly with regard to the great articles of air, diet, and exerciſe, on which the cure of a conſumption depends greatly, if not altogether. In order therefore to remedy theſe as much as poſſible, I ſhall preſume to ſuggeſt a few particulars, which, though not without a foundation in practice, are ſubmitted to thoſe whoſe abilities and opportunities better enable them to judge how far, all circumſtances conſidered,

ſidered, they may be proper and practicable.

A great part of the ſouthern coaſt of Wales is advantageouſly expoſed to the meridian ſun, and the ſea air from the ocean. Let a place be choſen thereon, moderately elevated, defended from the north and eaſt winds, and where the ſoil is dry. The grounds to be laid out in larger and ſmaller incloſures, with a ſufficient range for cattle of different kinds; let the paſture be enriched with the fineſt graſſes, ſuch as the cattle delight in, and ſtill farther improved by propagating, in plenty, the whole tribe of healing plants, according to a hint given for this purpoſe by Galen. Commodious houſes, with airy apartments, ſhould be built ſo near the ſhore as to be freely perflated from the ſea; and, for the ſake of greater cleanlineſs and retirement, detached from each other in the manner of ſeparate villas. Gardens between them and the ſea, ſtocked with balſamic odoriferous ſhrubs

shrubs and plants, with here and there a refreshing shade of trees of the same nature, would be necessary for ornament and convenience, as well as health. At proper distances, but not toward the sea, let groves, thickets, and forests of pine be planted, especially where most wanted for shelter from the colder points. By the effluvia of all these, and the vapour from the sea, the air would be truly medicated, and fit for the consumptive to breathe in. To embellish the landskip, and finish it in the true stile of nature, so as to give taste and propriety to the whole, a great deal of fancy and judgment might, not unusefully, be employed. It must be owned that it would require no small time and pains to complete the plan, and render it fit for those whose necessities might oblige them to go thither. Yet not so much but that, under proper management, half the ordinary period of a man's life might see it brought to perfection. The most material part in-

deed,

deed, and what is immediately neceſſary, would ſoon be accompliſhed. In the vicinity of ſo many trading towns, veſſels of all ſorts for ſailing could not be wanting; and ſome ſhould be kept moored in an adjoining bay, for the accommodation of thoſe who may chooſe to take the benefit of ſea air and exerciſe by means thereof.

Such a place imagination has often repreſented to me, as a healthful reſort, in ſome future time, for the conſumptive; a place fitly accommodated for them by a nice choice and diſpoſition of every thing ſubſervient to the general purpoſes of health and pleaſure: and though not cheriſhed, as in ſouthern climes, by the more conſtant and kindly influence of a warmer ſun, may this, in reſemblance to that of Italy, be the no leſs fortunate Stabiæ of Great-Britain.

With the concurrence of ſo many favourable circumſtances, milk might perhaps be drunk here with greater advantage than any where elſe, regard

gard being had to the kind and quantity, the manner of drinking it, and the particular ſtage of the diſeaſe. Cows milk is ſeldom directed, becauſe of its thickneſs; yet with due precaution it might often be of good uſe. Aſſes milk is commonly uſed; though that of goats in the ſeaſon is no leſs to be eſteemed; and mares milk may not improperly ſupply the want of either. When milk does not agree, goats whey is to be tried, and indeed is very often to be preferred. Should all theſe diſagree, butter milk promiſes moſt advantage. And if none of them anſwer, the hot-well water of Briſtol is proper, and will ſerve likewiſe to dilute milk, when the ſtomach can hardly bear it, or refuſes it unmixed. One reaſon why it uſually avails ſo little may be, that the quantity drunk is inadequate to the end. In order to receive certain benefit from it, the ſick ought to make it their principal food. However, by a long and plentiful uſe of it, the ſtomach is apt to grow foul,

which

which defeats its salutary effects, causing thirst, fever, head-ach, and loss of appetite. A trip to sea, therefore, should now and then be interposed; which will cleanse and strengthen the stomach, restore the appetite, promote digestion, and dispose the body to be nourished. Thus more certainly than by any other way, may the bad effects of a milk diet be prevented or removed. Nor should we wait till appearances show that the first passages are vitiated. Here it is best to anticipate. If two or three weeks, just as it agrees, are spent in the use of milk, a proportionable time should be devoted to sailing; and these alternately pursued till a cure is obtained. By this method a milk diet has been rendered highly serviceable; when otherwise it might have been, as it generally is, either hurtful, or of no service at all. Living at sea is often a cure of itself; milk is rarely, if ever so. But, if judiciously combined, they may hasten and secure recovery

recovery to thoſe who diſlike, or cannot undertake a longer ſea voyage.

However ſafe in itſelf milk may appear, it requires not a little caution to be obſerved in the uſe of it. When it is drunk too faſt, or the body is too quickly nouriſhed by it, there is danger. An increaſed quantity of fluid paſſing through the lungs with increaſed velocity, cauſes greater labour to the part, diſtends the veſſels, and may occaſion their burſting. A gentleman, in a conſumption, being anxious to live, and to be ſoon well, drank an Engliſh quart of goats whey in the morning, ate barley-meal porridge and butter-milk for breakfaſt; drank freely between meals, of a highly ſweetened decoction, and then dined on milk and vegetables. In the ſpace of ſeven or eight hours he took as many pounds of food and drink, the greateſt part of which paſſed into his blood. He grew florid; a large hemorrhage from the lungs enſued. The like accident, in a leſs degree, has

has happened to others from the ſame cauſe. Milk ought therefore to be drunk ſo ſlowly as never to load either the ſtomach or the lungs.

Thus have I, with much plainneſs and freedom, offered a few hints and conſiderations, regarding the care of a diſtemper, which is exceeding frequent among us, and cauſes every where ſuch mortal havoc, as calls aloud for the phyſician's utmoſt ſkill and attention *.

After long reflection, and what, I hope, will be thought ſufficient experience of it, I am fully ſatisfied that ſea air is, in all reſpects, fitly conſtituted, and therefore moſt proper for the conſumptive to live in. If to this be joined the exerciſe at ſea, medicine perhaps cannot furniſh a more apt and powerful aſſiſtant in the different

* In the London bills of mortality, the article Conſumption is about four thouſand yearly, excluſive of thoſe not buried in church-yards. If the number is ſo large in this one city, a very great one indeed, what muſt it be through the whole united kingdom.

kinds,

kinds, circumſtances, and degrees of a pulmonary conſumption: not only as it has all the effects of an internal alterative remedy, but as it anſwers all the purpoſes of an external application; both of which ſhould, with equal care, be attended to in the cure of it.

There is nothing more wanted, and nothing could be of greater uſe, than a rule by which we might certainly judge, in moſt caſes, to what a cure is owing. It is the more neceſſary, as a very vague maxim has been ſometimes adopted; to wit, that if a diſeaſe be cured, 'tis no matter how it is cured. If this principle be admitted, it will introduce a general obſcurity and uncertainty into practice; it will too often tend to eſtabliſh a method on very ſlight grounds; and will juſtify the uſe and continuance of every method and remedy propoſed by every author, if no better evidence of its utility be required than this, that patients may have recovered while they uſed

ufed it. Mere empiricifm inquires no farther than into prefent effects and appearances. That the greateft advantage has been derived from a careful ftudy of the *juvantia* and *lædentia* will be readily owned; but it muft at the fame time be acknowledged that, amidft a variety of remedies, it is impoffible to determine what does good, or what does hurt. To reduce medicine to a true fimplicity, is to bring it to a greater certainty; to the utmoft certainty of which an art merely conjectural is capable. Many remedies are recommended with fuch affurances, and even affeverations of their virtues, that fo ftrong a prepoffeffion in their favour muft be imputed to credulity, to a want of due examination, or the vanity of paffing for the author. For few of them difcover, either to reafon or experience, any fuch excellencies as have been attributed to them. While remedies of obfcure virtues, and fmall intrinfic worth, are every day multiplied and impofed, ac-

cording to custom and fancy, or upon the authority of a name; while through mere indolence, indifference, or a dread of singularity, we suffer them to usurp the place of such as are of real efficacy; and while many of them hold their rank by prescription only: while this is the case, medicine, as to the choice of remedies, must remain in a perplexing uncertainty. Every addition, far from being an useful acquisition, will but increase the number without increasing the value, and leave us to fluctuate, still more uncertain and perplexed, in endless confusion.

It is greatly to be wished therefore, that accurate histories of the operation and effects of medicines were always handed down to us in a number of experiments, sufficient to ascertain their use and efficacy, and to shew what is chiefly to be depended on in particular distempers. And here their good and bad effects ought to be faithfully related with the event in every case;

case; from which alone we can estimate the true worth of a remedy. A few successful cases, selected from a much greater number of unsuccessful ones, will not long support the credit of a relation, or of a remedy; how confident soever the one, or plausible the other, may be. Nothing is to be suppressed, nor should any thing be exaggerated. Every partial relation propagates an error, and leads into mistakes of a dangerous tendency; that will assuredly prove hurtful one time or other to the sick, as well as a discredit to the art. Not to insist farther on this matter, a vain consumption of time in the use of remedies no ways adequate, so much retards the cure; which, by the loss of a favourable opportunity, may be entirely defeated.

To enable us to judge more certainly by what means the cure is effected, it is not only necessary that we should have a thorough knowledge of the virtues and efficacies of remedies, but

it alſo intereſts us greatly to be well acquainted with all the different ways in which a diſeaſe may be cured. This, beſides ſhewing us what ſhare every remedy ought to have in the merit of the cure, will often direct us to a better method; and ſerve to abate the too general preſumption of arrogating to ourſelves the honour of a recovery, to which, it may be, we have contributed very little, if any thing, by our adminiſtrations. Nature, it is commonly ſaid, cures the diſtemper: art only removes the impediments. But how often is it cured by nature without the leaſt intervention of art? by time, chance, change of air, ſeaſons, climate, or ſome great alteration in life, affecting either body or mind; and ſometimes merely by avoiding the cauſes of the diſeaſe.

Having mentioned chance, I ſhall give an inſtance of a cure in a very obſtinate illneſs, as ſingular and agreeable as it was unexpected. A lady, near the end of her pregnancy, had a ſevere

ſevere fit of the cholic, ſucceeded by a jaundice. This went off while ſhe lay in, but ſoon returned, and continued four months; her health, in other reſpects, being but little affected. There was no pain, no fulneſs, hardneſs, or weight in the region of the liver. Her ſtools were always white, and ſhe was coſtive. Nothing ſeemed of any effect to remove the diſeaſe, and the colour of her ſkin was changing faſt to a deeper yellow. Riding one day, her horſe ſtumbled. An acute pain immediately ſeized her in the right ſide of the belly, which crept ſlowly along, ſtill leſſening, toward the navel, and in a few days ceaſed altogether. From this time her jaundice gradually abated, without the uſe of remedies, and ſhe recovered. The cauſe ſeems to have been a gallſtone obſtructing the common duct, the poſition of which was ſo altered by the ſudden ſhock, and the compreſſion of the muſcles, in ſtraining to recover

herſelf, that it could be eaſily puſhed forward into the inteſtine, by the exerciſe and ordinary action of the parts. Without ſuch a violent accident, the diſeaſe might have proved inſuperable.

Hereafter I ſhall not ſcruple, in ſuch a caſe, to adviſe failing, agreeably to reaſon and to the practice of the ancients, who have recommended it in the jaundice, and diſeaſes of the kidneys. The motion of the ſhip, and the retching from ſea-ſickneſs, are well adapted to promote the expulſion of ſtones, gravel, and other matters obſtructing the liver, gall-bladder, or kidneys, and their excretory paſſages. By following this method we ſhould imitate nature; as the ſpontaneous vomitings which attend icteric and nephritic caſes, are the efforts ſhe uſually employs for expelling extraneous offending ſubſtances.

I ſhall finiſh what was intended by theſe remarks on ſailing, as a remedy, with ſome farther inſtances of caſes,

 ſucceſs-

fucceſsfully and unſucceſsfully treated, that have fallen under my own obſervation, or been communicated by others.

A gentlewoman, after a ſlow fever, fell into anomalous ſhakings, which increaſed to a highly convulſive diſorder. The motions were ſo violent, ſo various, and ſo univerſal, that, in times of greater ignorance, ſhe muſt have been conſidered as a ſubject of exorciſm, not of medicine. By proper methods they were removed; and for a year or more, ſhe was entirely free from them. A return of the fever cauſed a return of the diſorder; which was again carried off by the ſame method. But on a third attack of the fever, it became habitual, and would yield to no remedy. Bath was propoſed, and ſhe choſe to go by ſea. By a train of misfortunes ſhe was driven from place to place, and experienced ſufficiently the hardſhips of a ſea life; the diſeaſe ſtill continuing or growing worſe. While at Bath, it

grew to a greater height than ever. Having drunk the waters for some weeks, without any appearance of amendment; as riding had formerly done her great service, she was advised to go home by land. Though there have been long intervals, the disease has, for many years, returned from time to time, and sometimes with violence.

A black, when about fourteen, had a depression still remaining, made in his skull by a fall, which rendered him for a good while insensible. Not long after, he was attacked with fits of the epilepsy, which continued some years. The fits, at first, came monthly, without impairing his mind; but as they grew more frequent, he became listless, sickly, and somewhat stupid. His master being informed that when the slaves in Jamaica had fits, a voyage was observed to do them good, sent him to sea. After nine months he returned from Virginia, and continued upwards of eighteen months

months free from his diſtemper; but he has lately had a ſlight fit; though at preſent he is a ſtrong, active, ſenſible fellow.

A young man had a ſevere cough for ſix months, with conſtant fever, night-ſweats, large purulent ſpitting, of a groſſer kind, and a hectic look. He was weak, and a good deal emaciated. His pulſe, however, was pretty full and ſtrong, and not greatly accelerated. Two or three ſmall bleedings were directed, a vegetable diet, but eſpecially butter-milk, mineral acids, and balſam of ſulphur with oil of turpentine. On the uſe of theſe the feveriſh ſymptoms abated, he got fleſh, and a better ſtate of health. This paſſed in ſummer. But the cough and ſpitting continued much the ſame. He went a voyage to Virginia. Nine months after that I met him fat, hale, and ſtrong. He informed me that, when he had been three weeks at ſea, the cough and ſpitting entirely left him, and he has continued

in perfect health these six or seven years.

A middle-aged man was so much reduced by a severe cough and night-sweats, that he could hardly walk. His pulse was almost gone; and an extremely small quick breathing shewed the lungs to be very partially inflated. He had not the smallest appetite. I should not have been surprised if he had died instantly. However, by proper cordials and diet, with some stomachic remedies, he was a little restored, or rather kept alive for a fortnight; when he had the courage to undertake a voyage of ten leagues, and performed it without any harm. The exercise made him sick and vomit bile. Two more trips to sea cured him. Not long after he came to me in good health, but had not quite recovered his strength. A sister nearly of the same age, died just before of a consumption, as had several of his family at different times.

A young

A young gentleman, very tall, was called up in the night when ſweating, on account of a fire, and ſtood a good while in water. A cough came on, under which he languiſhed a long time, and grew hoarſe. He made a voyage of ſix weeks, all which time he enjoyed good health, and was better, both as to his cough and his hoarſeneſs. On his return he rode a whole day in the rain, and was wet to the ſkin. He had got fleſh and a good complexion, and was ſenſibly taller; but continued hoarſe. The cough was not very troubleſome. It ſoon increaſed however, as well as the hoarſeneſs; he loſt his appetite; a hectic fever with ſweating came on, and at laſt he ſpit matter and died.

A young man, who uſually ſlept in a damp place, gradually contracted univerſal pains, with conſtant fever, quick breathing, and a diſpoſition to ſweat, and had a very ſickly hectic look. When he was conſiderably better as to theſe, a ſpitting of blood came on, which

which continued more or leſs, ſometimes in good quantity, for three weeks, and then left him exceeding weak. In February he went a voyage, which kept him ſeven days at ſea; it blew hard, and he was ſick the whole time, vomiting frequently. He returned free from all complaints, and had recovered his fleſh, and a hale look. The pains which before made him ſo uneaſy that he could hardly turn himſelf in bed, were entirely removed; and he has enjoyed good health for theſe two years paſt.

One who had been ill of a jaundice for four months, after trying many empirical remedies, was perſuaded to purſue a regular method. He was very feveriſh, and complained of great pain and inflation of the epigaſtric region, eſpecially on the right ſide. When the fever was carried off, he took vomits, and aperient ſolutive remedies, by which the yellowneſs began to decreaſe, but in other reſpects he did not grow better. A voyage of

two

two days brought no relief, as it did not cauſe any ſickneſs. In coming home he was eighteen hours at ſea, vomited moſt of the time, and brought up various matters. The pain and inflation, which nothing hitherto could remove, went off, and troubled him no more. Riding after this reſtored him to health.

Mrs. M. for ſome time complained of a cough and pain of her breaſt, which went off in her voyage to Antigua. There ſhe lived two years in perfect health, till ſhe catched cold from wet feet. This cauſed a return of the cough and pain, which for ſix weeks ſtill increaſed, notwithſtanding all that could be done. A ſhort voyage was propoſed. During eight days ſailing ſhe found herſelf conſiderably relieved; but, on coming aſhore again, the diſeaſe became ſo much worſe, that in eight days ſhe was ſcarce able to get out of her bed. Her phyſicians declared that if ſhe did not immediately undertake a long voyage ſhe had no chance

chance of living above a fortnight. She was therefore carried on board. Being now very weak and much wasted, no alteration could be perceived in her for some days. But after that she found herself every day easier, so that by the time she had been three or four weeks at sea, she scarcely felt any remains of her cough or pain, and had recovered her strength and appetite. What gave her most uneasiness was, the coldness of the air on approaching the northern climate. The voyage lasted near six weeks. She landed in Britain in August 1766, and has continued well ever since, now four years. But having seen her yourself you will be able to judge. This relation is from the lady's father, who gives me the following account of his own case.

When I was about fifteen, I began to be troubled with indigestion, so that all I ate turning sour, caused heart-burn and acid belchings. This continued, with few intermissions, till I was twenty;

twenty; notwithstanding all the means I had used, by the advice of physicians in different places. My affairs carried me to sea. I had been but a few days on board, when I found myself quite free from the disorder, my appetite restored, and my digestion greatly mended; nor have I had the least complaint from my stomach since that time, which was many years ago.

A French-horn, belonging to the twenty-fifth regiment, complained for almost three years of a constant pain in his breast, especially on one side, attended with a violent cough, copious gross expectoration, sometimes bloody, fever greatly increasing in the night, profuse night-sweats, and frequent fits of looseness. His legs were swelled. He had drunk goats whey one season, and lived mostly on milk; but could eat very little of any thing at a time. In this condition he was sent hither by sea, with the baggage, from Fort William, in June 1767. The

voyage lasted nine days. He was a little sick at first and vomited, which a good deal relieved him. His appetite mended every day, the cough abated, and the matter dried up. When he landed, his complaints were gone; though, while at sea, he drank, and lived irregularly. Such a disease it was thought would render him unable to perform any more on the French-horn, and he was discharged. Mr. Rhode, surgeon of the regiment, saw him two months after this at Edinburgh, in good health; and in October he still continued free from any complaint, and played the French-horn at public places.

A serjeant of the same regiment, in the second stage of a consumption, made the same voyage, but was not so fortunate. He received no benefit, and died in two or three months.

A young man, by sitting frequently with his feet wet, contracted a cough in November, which increased; and in December he spit sweetish matter, mixed

mixed with blood. He had a fever, heat, violent thirst, and night-sweats. In January he grew somewhat better; but catching cold during the use of a mercurial remedy, which by some advice had been given him, the symptoms increased so much, with great wasting, that he was confined to his bed for some weeks. The symptoms again abated, which gave him an opportunity of going to sea, towards the end of February, in a very weak state. He was about seven days at sea, and vomited much bile; but found no immediate benefit. However, after recovering from the fatigue of the voyage, he gradually mended during the spring and summer; when he was grown fat and ruddy, and seemed to have no complaint.

A gentleman, long subject to sweating, from living in too warm a room, had at last signs of tubercles. A voyage was advised, but he chose rather to ride, and used resolvent pills for a considerable time, but without success.

ſucceſs. In autumn he began to ſpit ill-taſted matter. The cough and ſpitting increaſed when he lay on his left ſide. He declined ſo faſt, that it was doubtful whether or no he could get over the winter. A voyage was again adviſed and complied with; and he endured ſeven days of ſtormy weather at ſea in October, which obliged the crew to put into the firſt port they could make. In his way home he rode a long journey; and by getting wet to the ſkin, caught a ſevere cold; notwithſtanding which he was greatly mended, and enjoyed pretty good health all winter and ſpring, though the cough and expectoration continued much the ſame. In April he declined again. A ſea voyage was inconvenient. He therefore lived all ſummer upon a dry flat ſhore, almoſt within flood-mark, and rode every day cloſe by the ſea. The cough was always more troubleſome when he went to a town, and the matter became ill-taſted, which it was not when

he

he breathed the sea air. Even then the eating of meat, or rich milk, would give it the bad taste. It was very remarkable, that, whenever he came under the shade of trees, he had a sensible oppression in breathing. His smelling was very acute. In September the cough, sweating, and expectoration were gone; and he could lie with equal ease on either side. At last he allowed a seton to be put between two of his ribs. During the winter he enjoyed a pretty good state of health; but the spring, as formerly, caused a return of all his complaints, and he died in the winter.

A lady, in the advanced stage of a consumption, rode a journey of fifty or sixty miles. The weather proved bad, and she came to this place in March, much fatigued and exhausted. A severe looseness came on, and she was confined to her bed. Her cough was not violent; but there was some appearance of pus in what she spit. All the spring, and a great part of

summer, it was doubtful whether she would ever get abroad again. Growing somewhat better, however, in July, she was carried, in a very weak state, to live on the sea coast. Though the weather was all the time most unfavourable, after a month she returned so much better as could hardly have been imagined possible. The cough was almost gone. She dressed, visited, and looked like one in perfect health. But this amendment was only temporary. From so short a trial of the sea air no lasting effect could be expected. The decline of the season caused a return of all her complaints, and she died in winter.

Four years, says a gentleman who resides here, I laboured under a fever and ague. The fever was constant, attended with great thirst, sweating, loss of appetite, and want of sleep. I could scarcely walk twenty yards without danger of falling, and my legs were swelled. Expecting benefit from change of air, I left the West-

Indies in 1761, and found the salutary effects of it. After being a few days at sea, the ague fits altered their periods, my appetite returned, and I could walk on deck with ease and pleasure. In a short time the fever went off entirely, and the swelling of my legs was almost gone. I daily recovered, and before I landed in Britain, ate, and digested as well as any man on board. Some days after I came ashore, a severe cold seized me, and gave me a nervous pain of the stomach, which was carried off by drinking the waters at Bath. I continued in pretty good health till 1762, when I returned to the West-Indies, where I had not been above two days when I was attacked with all my former complaints. My old remedies gave no relief. Short trips among the islands did me good from time to time; but I could never shake off the disorder, till I made a second voyage to Britain. I daily recovered at sea, and have enjoyed perfect health ever since.

A surgeon of this place was seized with a diarrhœa last February, 1770, which continued all spring and summer, and reduced him so much that in the beginning of September he made a trip to sea, almost in despair. He was twelve hours in the passage out, and as many in coming home. From the time he went on board, the number of his stools gradually decreased; so that in three weeks or a month, he went to stool only once a day, or once in two days, and now in November he sometimes is costive. He has got flesh and strength, and a pretty good complexion and appetite. It will be questioned, perhaps, whether or not this cure should be attributed to sailing. The patient suffered no sickness nor fear, nor any sensible compression of the bowels, from the greater action of the abdominal muscles, occasioned sometimes by the pitching of the ship; and he was but a short time at sea. On the other hand he used no kind of medicine; he

made no alteration in his diet; the seaſon of the year, and the weather, which was cold and flabby, were unfavourable to him, and nothing ever gave him any relief for above a day or two, till he went to ſea.

With pleaſure I acknowledge my obligations to the learned and ingenious gentlemen, who have ſo readily communicated the hiſtories and obſervations which follow.

Dr. Gregory, profeſſor of medicine at Edinburgh, has favoured me with ſome uſeful obſervations on this ſubject. I have ſeen ſeveral inſtances, ſays he, of the utility of ſea voyages, in a variety of chronical diſorders; particularly, in a conſumption, hypochondriac complaints, and where there was reaſon to ſuſpect infarctions of the abdominal viſcera. I knew two people cured of a phthiſis pulmonalis when in the laſt ſtage, with true purulent expectoration, hectic fever, and conſtant night-ſweats, by ſailing to the Weſt-Indies; but I have no journal of

any of these cases. The effects might, in these two instances, have been owing to the warmth of the climate; but, from the good consequences which I have seen result from sailing up the Baltic, where the weather is colder than in Scotland, I am inclined to believe that the principal benefit arose from sailing.

Many people bear the incessant nausea, and frequent vomiting at sea for several weeks together, not only without danger, but without any considerable diminution of their strength. We cannot produce such a constant stimulus by medicine, without the greatest risk. I apprehend indeed, that no physician would prescribe such a course, nor could any patient submit to it. Yet we have reason *a priori* to expect that such a constant nausea, where it can be easily sustained as at sea, must have a great influence on the system, particularly by promoting a diaphoresis, and resolving obstructions in the viscera.

For

For the two following cases I am indebted to Dr. Stevenson, professor of medicine at Glasgow. Mr. G. of Jamaica, when about thirty, in riding hard, struck his breast against a tree. Though he felt much pain, it was not till after some days that he would allow himself to be blooded. A troublesome cough came on, and he often spit blood, sometimes to the quantity of two pounds. He was reduced to the lowest extremity, with every bad phthisical symptom, so that his physicians did not think he could live ten days. Dr. Douglas, who knew your sentiments about sailing, insisted on his coming along with him to Britain. In less than a fortnight after he began the voyage, he recovered flesh, strength, and appetite, and his pulmonary complaints abated apace. He never was sea-sick, but had a smart fit of the gout, which reduced him again before he landed. The ship, he said, was a very stinking one, and his

his diet chiefly falted pork. He had now little uneafinefs in his breaft; his pulfe was not much above the natural; and he expectorated a tough mucus ftuff, with no great difficulty. I urged him, as foon as poffible, to get to fea again, and continue there till his health was more confirmed, as our winter might be hard upon one who had never lived in a cold climate. Bufinefs, however, and curiofity, induced him to go to London by land, in November. The journey fatigued him. He got repeated colds, and was feized with fevere pleuritic pains. By thefe, and the neceffary evacuations, he was brought fo low, that he wrote me his fituation in abfolute defpair. As foon as he was able to move he failed for Jamaica, and recovered in fome meafure; but continued thin and fickly, as a gentleman who faw him feveral times informed me, and at laft he died.

Mr. C. aged thirty-four, was for fome years fubject to returns of cough and

and asthma. In July 1766, being at Boston, these complaints recurred with more violence. He became very feverish, but had less cough; and as the fever abated, the cough increased again. He was greatly wasted by profuse night-sweats, and coughed incessantly, but brought up nothing gross or ill-coloured. In this state he sailed for Britain, and in ten days found a wonderful change for the better. When he arrived at Cork he thought himself in good health, and walked about every where through wet streets, by which means he catched cold, and was still bad when he came here in the end of December. I could not prevail upon him to go to sea again; and now, after six months, notwithstanding the use of every common remedy, he is almost as bad as when he left Boston.

Dr. Welsh of Winchester informs me, that a gentleman, being taken by the French during the war, lay several nights

nights on a cold wet deck, and was afterwards thrown into prison. Here he contracted a violent cold, with great cough, fever, and wasting, which continued several months, with all the appearances of a consumption; till on going a voyage to Jamaica, he recovered entirely at sea.

Dr. Raymond of Marseilles writes me thus: Je suis du meme sentiment que vous sur cette doctrine. Le hazard m' engagea a l' examiner il y a une dizaine d' années: je traitois un phthisique que etoit deja au second periode du mal, dans la suppuration; je le crus perdu; je ne fus pas peu surpris quand un matin que je fus le voir, il m'annonça la resolution ou il etoit de partir dans un vaisseau qui etoit prêt pour l' Espagne; je fus etourdi de cette hardiesse; neanmoins j' y consentis, parceque dans un etat que je crus desesperè, je pensai qu' il etoit indifferent qu' il perit sur mer comme sur terre. Il part: huit mois

apres

apres je le revois de retour parfaitement gueri, et ayant repris des chairs et de l'embonpoint: je crus voir un mort reſſuſcité. Depuis je m' appliquai à approfondir les effets de l' air maritime, et de l' exercice de la navigation; je compoſai une traitté ſur ce ſujet qui eſt fini depuis quelques années; j' y fais l' hiſtoire de cette doctrine; mais comme je manque d' un certain nombre d' obſervations, j' ai differé de le publier. Si vous aviez fait quelques nouvelles obſervations ſur cette matiere, je vous ſerois infiniment obligé de me les communiquer. Je vous dirai que les ſeuls remedes qui m' ayent reuſſi dans la phthiſie, cette maladie auſſi commune que pernicieuſe, ſont les decoctions vulneraires, la diete herbecée ou vegetable, et l' air maritime. J' obſerve, que l' uſage ou l' on eſt dans le pays d' envoyer les phthiſiques changer d' air dans les lieux aquatiques du continent eſt funeſte; le mal y eſt bientot aggravé: auſſi la phthiſie ſeroit principalement

dans

dans les lieux aquatiques, et exposés au vents de Nord, dans cette province comme ailleurs.

Dr. Macbride of Dublin has supplied me with two cases, both under the inspection of Mr. Sempill of Donaghadee, who gives the following account of them. In autumn last, a young man arrived at this place from America, who informed me that, when he left that country, he was in the last stage of a consumption. His legs were much swelled, he coughed incessantly, had totally lost his appetite, and was so weak that they were obliged to carry him on board. After severe sea-sickness for a few days, he recovered his appetite, grew gradually stronger, and landed here greatly recruited. He continued in this neighbourhood through the winter, and enjoyed pretty good health; but at times was somewhat hoarse, and liable to colds. He set out early in the spring for America, in hopes of a perfect recovery.

A young

A young lady about sixteen, whose brother and sister had died of a consumption before they arrived at that age, was from her infancy subject to a cough. She grew very fast, so as to be remarkably tall; had a long neck, a narrow chest, and frequently complained of pains in her sides, breast, and arms. In spring the cough became more violent, attended with continual fever, flushing of the cheeks, profuse night-sweats, swelled ancles, and an entire loss of appetite. The spitting was purulent. In a few weeks she became so weak and emaciated, that those who attended her had not the smallest hopes of her recovery. Nothing was to be done by medicines, the stomach nauseating not only these, but every sort of nourishment. In this situation she was ordered to sea, and happily received from sailing almost immediate relief. She brought up great quantities of bile, and purulent stuff. Upon her return from the voyage, which was but short, she had got

got an appetite, which increased by pursuing the same exercise, in which she had no return of sea sickness. In a short time she recovered strength and spirits, and has now, for more than twelve months, enjoyed as good health as can be expected in one of such a delicate constitution. Her recovery, it is plain, was owing to a few sea jaunts, without the aid of medicines, or paying much regard to the regimen prescribed her.

Extract from some practical observations sent to Dr. Hunter of London by Dr. Makittrick, formerly of Antigua, now of Andover in Hampshire.

Consumptive disorders, whether arising from a fault in the lungs, or in the other viscera, are as fatal, and as speedily so, in the West-Indies as in Europe. The advantages which the equality and temperature of our atmosphere afford such patients are, I am afraid, more than counteracted by the debility which the climate occasions, and by which our viscera are more

injured.

injured. To this we may add that disposition to acrimony and putrescency, very generally caused by heat and moisture. A treatise on the use of sea voyages in medicine induced me to try the effect of sea air on my phthisical patients.

A gentleman of this island, aged forty-three, by frequently riding in the night through a part of the country much subject to lodgments of water, contracted a cough, and neglecting it for some time, gradually declined in his health. But in the year 1760 his disease advanced so rapidly as to alarm him. As he was of a sanguine habit, he had blood taken from his arm in small quantities, and often; and, together with a dietetic regimen, used a few palliatives occasionally. In June he began to complain of hectic heats, febrile exacerbations at night, and profuse sweats in the morning. His cough became almost incessant; and what he expectorated was, to appearance, purulent,

rulent, with a degree of *fœtor*. He had bad nights, and loſt his ſtrength and appetite. I had repeatedly, though without ſucceſs, recommended an iſſue or perpetual bliſter, and going to ſea, as means which promiſed more advantage than all the reſt of the materia medica united. I now called to my aſſiſtance two gentlemen deſervedly eminent in their profeſſion. A milk diet, a decoction of ſarſaparilla with the bark, and an anodyne occaſionally, were uſed for a conſiderable time, without any marks of amendment. As our patient was tired of a courſe of medicine, which did not avail, he conſented to the application of a ſbliſter between his ſhoulders, and went to ſea in October, in a ſhip of war bound to Barbadoes. From the time he went on board until he landed, his cough gradually abated, and indeed entirely left him; his appetite and ſtrength amended in the ſame proportion. At this iſland, though ſufficiently regular, he expe-
rienced

rienced a return of his former complaints, in a slighter degree, which speedily left him on his going to sea again. In short, such was the efficacy of sea air, unaided by any other means but a temperate regimen, that in seven weeks he returned to his friends perfectly recovered; and now enjoys a better state of health than for five years before, and is free from all complaints, in August 1765.

I do not recollect another instance of the sea air being so completely effectual as in this gentleman's case; but that, I am persuaded, must be wholly imputed to the impatience of some to whom I recommended it; or to the avocations of others, which would not permit their continuing at sea a sufficient time to reap the usual advantages from it. As I frequently accompanied my patients to sea for a few hours, I always observed with pleasure that, after recovering from the fatigue and sickness, they were remarkably easier; the hectic

heat was leſs, their appetite grew better, and their ſtrength increaſed. Indeed theſe marks of amendment did not always continue long; as I loſt ſome of my patients, notwithſtanding theſe ſhort airings. But there are others now alive who experience ſuch advantage from ſea air and exerciſe, taken in this partial manner, that, though they cannot boaſt of eſtabliſhed health, yet their phthiſical ſymptoms have ever ſince been upon the decreaſe.

Now I am upon the ſubject, it may not be improper to obſerve that having, for ſome years, adhered to the palliative methods of treating this diſeaſe, I had the mortification to loſe almoſt all my patients. Although I was not ignorant of the methods propoſed by writers for the radical cure thereof, yet I ſeldom attempted it till I had ſeen the treatiſe abovementioned, which determined me to adopt the author's practice in this inſtance. In a few caſes, where there was room

for suspecting the existence of tubercles in the lungs, and obstructions of some of the other viscera, I have succeeded by small doses of the *pilulæ mercuriales laxantes*, together with the bark in water, and the *tartarus solubilis* in remissions of the hectic heats. But after this fever was formed, and the tubercles imposthumated, these means seemed in general to precipitate the death of the patient. Perpetual blisters and issues, where we cannot use repeated bleedings, are, I am persuaded, highly beneficial. Perhaps that period which succeeds an exacerbation of symptoms, from a fresh obstruction and inflammation of the tubercles, is the precise time when we may expect the greatest benefit from these applications.

In a subsequent letter, Dr. Makittrick writes, that the gentleman, whose recovery by a sea voyage evinced the great utility of that remedy, continued in a good state of health, till he went as Attorney-General to the island

of Grenada; when, by allowing a blister to dry up, which had been kept open some years, and by living in the neighbourhood of a stagnant marsh, perhaps by repeated colds, together with the fatigue of his employment, he relapsed into his former state. His business not permitting him to go to sea, so soon as the bad state of his health required, he declined so fast, that, when he went to sea, he was obliged, after a few days, to land again at Antigua, where he died three days after his arrival.

The same gentleman adds: Two hours ago I had with me the father of one of my patients, who is in a deplorable way. I earnestly solicited him to give his daughter a chance for life, by going to sea. He told me her mother would not consent to it; but that a letter he had received from a brother in Virginia, had given him the best opinion of that remedy. The young man, as I found from the letter, and his brother's information, having a heredi-

tary

tary consumptive disposition, embarked a few months ago for Virginia. His condition, which is very expressively described, was a phthisis pulmonalis in an advanced stage; but such was the effect of his voyage, that, at the time he wrote, he was fat, and entirely relieved from his complaints. His brother had sagacity enough to attribute the cure to the voyage solely; and it is, on the whole, as striking an instance of the efficacy of that remedy as any I ever met with.

A pretty curious history has been communicated to me by Dr. David Skene of Aberdeen, and is as follows: In 1767 a young man had, for some time, laboured under the lues venerea. I put him upon a mercurial course, which was not intended to produce a salivation; and as I could not see him often, I gave him very particular directions as to management, which were not sufficiently attended to. He catched cold, and I was informed that a spitting had come

on. On viſiting him I found his ſituation really alarming. The ſpitting was indeed moderate, but he had an inceſſant cough, with a thick, yellow, concocted expectoration. His pulſe was frequent, and his breathing difficult, upon the leaſt motion. He ſweated every night, waſted, and grew weak; and had the clear blue eye ſo common to phthiſical patients. In a word, he had all the ſymptoms of a phthiſis pulmonalis. As the diſeaſe had come on, and increaſed ſo quickly, no time was to be loſt. The mercurial courſe was ſtopped; and circumſtances favouring much a ſea voyage, I was willing to give it a trial. He went on board about the end of September, and continued coaſting (lying only now and then a night aſhore) near a month; at the end of which he returned greatly reſtored in fleſh and ſtrength; his pulſe was natural; the ſweating, difficulty of breathing, and cough, entirely gone. The venereal ſymptoms remaining, he was again

put

put upon a mercurial courſe, which he went through without any ſalivation, or return of his pulmonary complaints, and was perfectly cured.

A gentleman, well acquainted with the particulars, gives me this caſe. A young lady, ill formed in the cheſt, of a puny habit, which was not mended by the ſoft manner in which ſhe had always lived; of weak bowels, and ſubject to ſevere colics and looſeneſs; fond to exceſs of warm bathing, which, no doubt, had contributed to forward ſuch complaints as might naturally have been expected in ſuch a conſtitution; was, about three years ago, ſeized with a cough, ſtuffing, and pains about the breaſt and ſides. Theſe, in ſpite of the moſt approved remedies, continued ſometimes better, ſometimes worſe, till May laſt. She was now much reduced in fleſh and ſtrength; had totally loſt her appetite; the ſmalleſt error in diet brought on a colic and looſeneſs; there was a conſtant hectic, with night-ſweats; ſhe

ſpit a great deal of purulent matter; and her feet began to ſwell. The caſe appearing deſperate, ſhe was adviſed to try the effects of iſſues, and a ſea voyage. A ſeton was put in her back, and ſome blood taken away, in order to guard againſt accidents from the ſea-ſickneſs; which however ſhe hoped, from ſome trials ſhe had already made, would not be ſevere. The blood was very ſizy.

She ſailed for Madeira the beginning of June; but, contrary to expectation, was ſo ſeverely ſea-ſick that it was judged neceſſary to give her a little reſpite, by putting into port the third day. She ſailed again on the tenth, was as ſeverely ſick as before, and continued ſo above a fortnight. She had now got ſo far to the weſtward, that ſhe could not ſoon reach any port; and, notwithſtanding her preſent diſtreſs, ſhe had the fortitude to proceed in her voyage. All this time no medicines were uſed, her ſtomach would retain nothing, not even

food

food or drink. Through want of nourishment she daily grew weaker, but coughed less; her hectic went off, she slept better, breathed easily, had a keen appetite, and ate frequently, though she immediately threw all up again. The expectoration diminished greatly, and there was no complaint from pains of the side or breast.

On the first of July she landed at Madeira; and though she had then been for some days free from sickness, and eaten heartily, she was still so weak that she could not walk without being supported. However, she recruited so fast that by the fifteenth, when she left the island, there was such a change for the better as none, even the most sanguine, could have expected. On sailing again, she was pretty severely sick for two or three days; after which she recovered wonderfully; so that before she got to Lisbon, which was on the tenth of August, she was able to be almost constantly upon deck in the day-time,

though in very indifferent weather. She got flesh, slept well, had no difficulty of breathing, nor coughed, but in the morning; after which, and bringing up a little of the same matter that she had all along expectorated, she continued easy all day and night. At Lisbon she catched a severe cold, by exposing herself to the night air, after being at a crouded opera, in hot weather: but by bleeding, and the proper remedies, she was brought to expectorate freely, and grew better. Going to sea again on the twenty-sixth of August, she mended daily; so that by the end of September, being at Barcelona, she seemed to have regained, in a good measure, what she had lost at Lisbon. But here also, forgetting her situation, she caught a violent cold, in the same way as before; which, though it yielded a little to the former remedies, yet was far from being quite removed when she got to Montpelier. From thence she went to

Nice,

Nice, where, in little more than a year, ſhe died.

As this patient uſed no medicines, except a trifling quantity of bark and lime water, in her way from Madeira to Liſbon, her amendment to ſo great a degree muſt be attributed to the ſea air and exerciſe, and perhaps to her ſickneſs at ſea.

I am obliged to Dr. Young of Edinburgh, for the caſe of a gentleman thus related by himſelf. "Ever ſince I remember I have bled very much at the noſe. About four years ago, and a few days before I ſailed for London, I bled a ſurpriſing quantity in forty-eight hours, and was ſo much reduced as to be hawled on board. It is remarkable, that I never ſtained my handkerchief after I went on board. We were toſſed about off Portſoy for ſome days; and, though I never was ſick, I choſe to land, and wait at Aberdeen till the ſhip came round. No ſooner had I ſet foot on ſhore than the bleeding returned, and continued,

often

often to a great degree, till I went on board again; where I remained ten days without bleeding a drop. The moment we cast anchor at Gravesend my nose began to bleed a little, and did so all the way to London, and for a week or ten days after. I put myself under the care of Dr. Armstrong, who completed what I imagine the sea air would soon have done. So much am I convinced of this, that, should I be again attacked, I would immediately go to sea, at whatever season. When I left London, I posted home night and day, and since that time have scarcely had any return of my complaint. After coming home I bathed in the sea."

Extract of a letter from a gentleman in the East-Indies. "In October 1767 I was seized with a cough, which I thought too trifling a complaint to need any assistance, and suffered it to go on till a train of the most alarming symptoms convinced me of my mistake. I had excruciating pains in my breast,

breaſt and ſides, with conſtant difficulty of breathing. The quantity of blood I coughed up was amazing. I was reduced to a mere ſkeleton, and became ſo weak that I could not riſe from my bed without help. My weakneſs, at times, brought on a delirium, which was generally ſucceeded by fainting fits, of ſo long continuance that every one of them threatened immediate death. Thoſe I conſulted had little or no hopes of my recovery. The only remaining chance, they told me, was a ſea-voyage, which is adviſed here in various caſes. I was carried on board, expecting that every moment would be my laſt, or that the firſt fit of ſea-ſickneſs would carry me off; but I was happily diſappointed. Two days after we ſailed, the violent retching broke an impoſthume of the lungs, the matter of which I had juſt ſtrength enough to bring up. From this time I recovered ſurpriſingly; ſo that before we reached Bombay, which was near three months, all my complaints were gone;

gone; I grew fat, and acquired a better ſtate of health than I had ever enjoyed."

The following relation from the phyſician who accompanied the patient, contains ſeveral particulars that may be of uſe to thoſe who undertake long voyages for the ſake of health.

"A young nobleman of our country being at Aix in Provence, was, on Chriſtmas day 1764, ſeized with a ſpitting of blood from the lungs, which reduced him to the greateſt extremity. In this ſituation, however, four weeks after the firſt attack, he was tranſported to Marſeilles, where I joined him on the ſeventh of February 1765. As the caſe ſeemed to me a very bad one, I did not heſitate a moment in adviſing his going to ſea with all poſſible expedition. His pulſe was never below ninety when at reſt, and it roſe to a hundred or upwards after eating or moving. His cough and expectoration were conſiderable; but I could perceive no purulent matter in what he ſpit, which did not ſink in water, or give any bad ſmell, when

put

put upon live coals. Streaks of blood indeed were often obſerved, and ſometimes ſmall quantities of pure blood were brought up. He was frequently let blood, and his blood was ſizy. He had no pain of the breaſt or ſides, and could lie with equal eaſe on either. The face fluſhed after eating, but there was little or no thirſt or night-ſweats; he was coſtive, much emaciated, and it was with difficulty he could walk acroſs his bed-chamber; his ſpirits were nevertheleſs good.

The fifteenth of February we ſailed from Marſeilles, and the ſecond of March arrived at Malta. During this ſhort navigation we had freſh gales of wind, which almoſt daily produced ſickneſs, and vomiting of bile in large quantities. The pulſe came down to eighty, and never roſe to ninety; he gained ſtrength, his appetite grew ſharp, and his ſleep ſound and refreſhing. In a word, never was a voyage attended with more remarkable ſucceſs. At Malta, being invited by the Grand

Grand Maſter to his palace, the patient had between forty and fifty ſteps of a ſtair-caſe to walk up, which he did with eaſe, and converſed with that Prince a quarter of an hour at leaſt, ſtanding. Beſides, he rode over the iſland in a chaiſe, though the roads were rough; and in the evening he commonly took the diverſion of angling. The blood was now leſs inflamed, having little or no ſize upon it, and his other bad ſymptoms became leſs formidable. All this gave me great hopes.

We left Malta the fourteenth of March, and ſailed for Sicily; from thence to Sardinia and Minorca, where we landed the ſixteenth of April. During this period the patient, though he loſt nothing, did not gain much in point of health. We remained at Mahon almoſt three weeks, where he had a return of his ſpitting of blood, but in no conſiderable quantity; owing, I believe, to his having walked too long on the ramparts of St. Philip. This accident made

made me wiſh to get to ſea again as ſoon as our ſhip could be repaired; and we embarked the ſecond of May for Britain, with a view at the ſame time, to be there ſoon enough for the ſeaſon of goats whey. In this voyage I was greatly diſappointed; for the ſpitting of blood returned twice, notwithſtanding the frequent uſe of the lancet, and a low diet. I was the more ſurpriſed on account of its being the firſt appearance of this kind at ſea. The cough, expectoration, and other ſymptoms increaſed; and he was much reduced when we arrived. From that time, till we embarked at Briſtol, it will be needleſs to ſay any thing, but that he reaped no advantage from drinking the hot-well water.

On the eighth of November we ſailed from Briſtol, and anchored in the Tagus the thirty-firſt of the ſame month, without any remarkable change. And that he now received no benefit, was owing perhaps to this

circumstance, that now blowing weather did not cause any sickness, which never had failed before to produce some good. We were six weeks at Lisbon, and had the misfortune to meet with weather uncommonly cold for that climate, by which the patient was hurt.

From Lisbon, we sailed in five days to Madeira, where we staid a week; and the appearances were better than at Lisbon. I believe it to be one of the steadiest climates in the world, and consequently proper for weak constitutions. Dr. Heberden assured me that, in fourteen years observation, he had never known the thermometer in the shade to rise higher than seventy-four, or to fall below fifty-four.

We were thirty-one days in our passage from Madeira to Barbadoes; where, and in the other islands within the tropics, we passed six weeks. Here the patient was in all respects remarkably better; and had he taken my opinion, would not soon have left that climate. There was no indication

tion for bleeding; the pulse was commonly at eighty; the cough and expectoration were trifling; his appetite and spirits good; the heat was not uneasy to him, and he slept well. I dreaded the variable weather of the continent; but unluckily he never thought himself in danger; and so strong was his desire to know the state of our colonies, that nothing could prevail on him to remain in the islands.

No sooner had we got to the continent, than all the bad symptoms returned, particularly in South-Carolina, where we passed the winter; and no wonder indeed, for he had to combat with a climate the most variable that can be imagined, the thermometer sometimes differing thirty degrees in six hours. Bermudas or Barbadoes would have been the proper wintering places.

When we left Charlestown, to return to Britain, he was reduced to skin and bone: his spirits, however, were good, till

till ten days after we ſailed, which was on the third of May. He was then ſeized with a violent diſorder in his ſtomach, which continued more or leſs during the voyage, and was frequently attended with a looſeneſs; ſo that I ſcarcely expected to have got him to England, and where he only lived five days. Ten days before we landed, he brought up a ſmall tea-cup full of pus, the firſt I had ever obſerved.

On opening the body there was little or no loſs of ſubſtance perceived in the lungs. This confirmed me in an opinion, which was likewiſe Sir John Pringle's, who was conſulted before we left England, that there was no ulcer in the lungs at that time; and I believe that the ſuppuration did not come on till very late in the diſeaſe. The right lobe was full of tubercles. A few of them had ſuppurated, which produced the ſmall quantity of pus juſt mentioned. The left lobe adhered ſo firmly to the pleura that it could hardly be ſeparated.

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